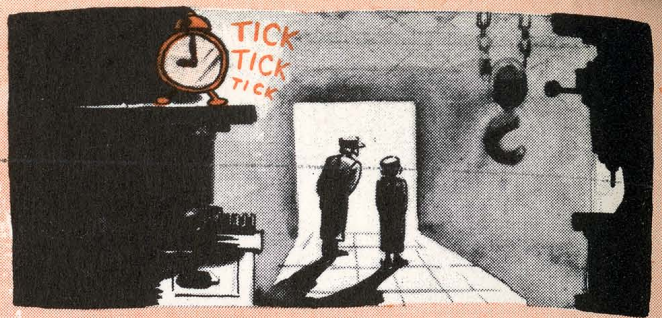
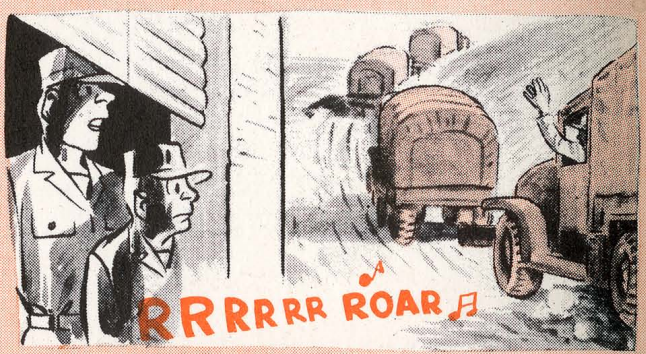
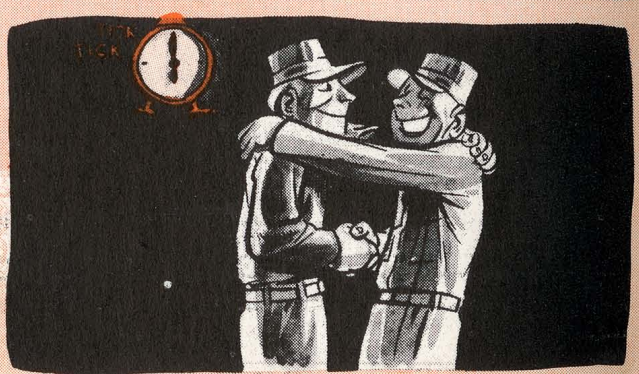
Issue 37
PS
1955 Series
THE PREVENTIVE MAINTENANCE MONTHLY

THE DAY 3RD ECHELON WAITED







Third Echelon waited. . . .
No trucks came in for repair...
no tanks...no weapons.
"It's too quiet," they said.
They didn't know till later
that the using units
had got so "on-the-ball"
with their maintenance
and operating procedures
that there was no equipment
in the area needing
3rd Echelon repairs—
so, nothing went to
the maintenance support unit
to get fixed.
The guys who use the equipment
and their unit mechanics
kept their stuff ready and rolling
by preventing trouble
before it started.
They did it with the right kind of
operating,
lubing,
cleaning,
care,
adjusting and repairing.
It was "*on-the-ball*"

Preventive Maintenance.

How's yours?

PS MAGAZINE

Issue No. 37 **1955 Series**

Published by the Department of the Army for the information of organizational maintenance and supply personnel. Distribution is made through normal publication channels. Within limitations of availability, older issues may be obtained direct from Preventive Maintenance Agency, Raritan Arsenal, Metuchen, New Jersey.

IN THIS ISSUE

FEATURE ARTICLES

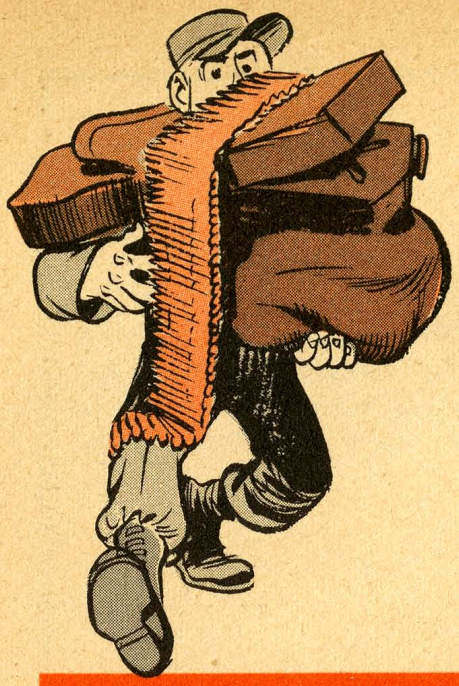
Storing M48 Tank OVM 2
Double-Sprag Clutch 14
Winterization Dope (Cartoon Section) 21
So Long, Pvt Fosgnoff 29
Synchronizing Your M42(SP) 38

DEPARTMENTS

Connie Rodd 17
Half-Mast 30
Engineers 33
Publications Scoop 20
Armament 46
Connie Rodd's Briefs 47
Index (PS 25 through 36) 48

PS Magazine wants your ideas and contributions, and is glad to answer your questions. Just write to: **Sgt Half-Mast, PS Magazine, Raritan Arsenal, Metuchen, New Jersey.** Names and addresses are kept in confidence.

DISTRIBUTION: Active Army: Gen Staff, DA (1) except GI (2); SS, DA (1); Tec Svc, DA (5) except: COFENGER (75); COFORD (275); Admin & Tec Svc Bd (5); Hq, CONARC (10); OS Maj Comd (5); OS Base Comd (3); MDW (5); Armies (50); Corps (3); DIV (2) except: Armd Div (100); Tng Div (50); Brig (3); Regt/Gp (3); Bn (5); Co (18) except: Cml Co (8); Med Co (8); QM Co (8); Ft & Cp (6); Gen & Br Svc Sch (5) except: Engr Sch (100); Ord Sch (25); USMA (25); Joint Sch (5); Specialist Sch (5); PMST (3) except PMST Ord ROTC Units (25); Gen Depots (5); Sup Sec, Gen Depots (5); Depots (5); AH (5); RTC (100); POE (3); OS Sup Agencies (2); PG (5); Arsenals (25); DB (25); Cruit Maint Sta (3); Div Engr (2); Engr Dist (2) NG & USAR: In accordance with list furnished AG publications centers. For explanations of abbreviations used, see SR 320-50-1.



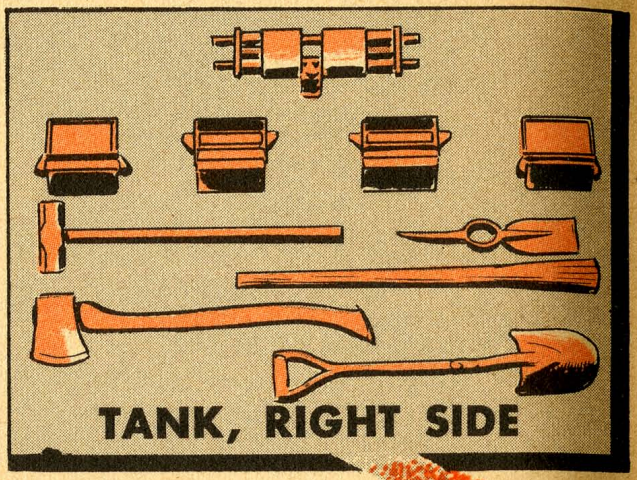
What Goes Where When—
STOWING

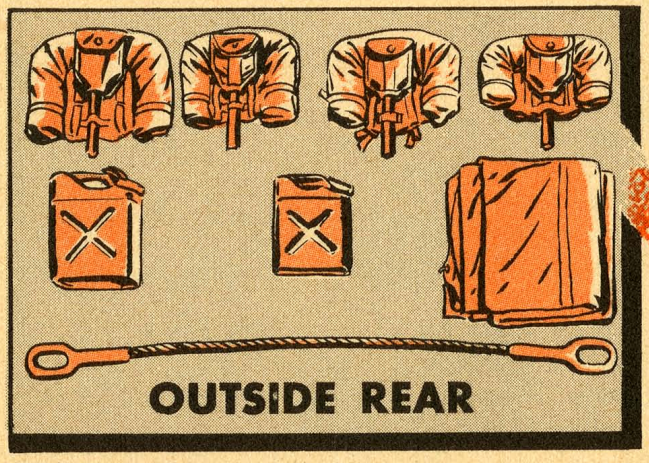
Finding the right spot for your M48 tank's on-vehicle-material? It's a snap when y'know how—and where.

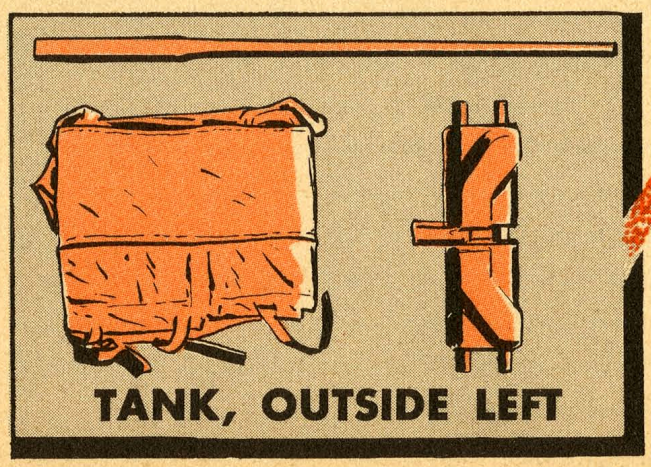
Here're two stowage charts and a check list that should help to set things straight—so's you'll always lay a hand on the right thing at the right time.

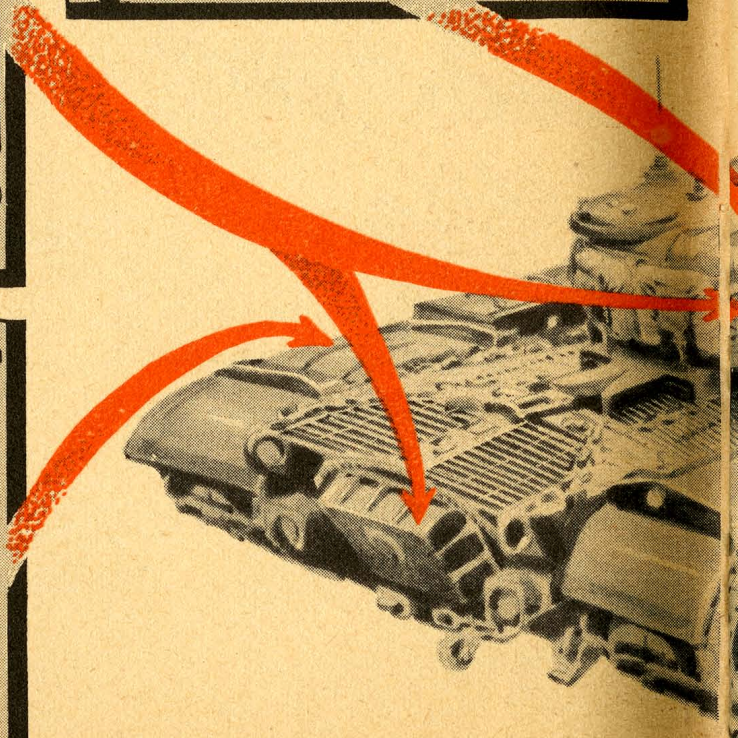
Items are shown grouped by stowage area. For more specific data—like part name and quantity—just read on, McStuff.

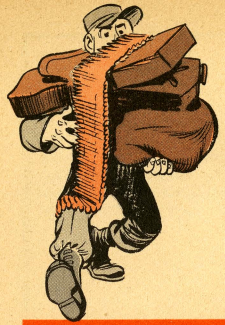
STOWAGE CHART
RIGHT REAR VIEW











What Goes Where When—

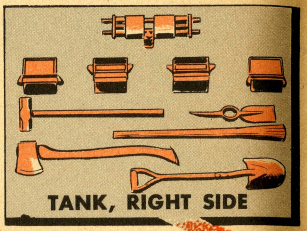
STOWING M48 TANK OVM

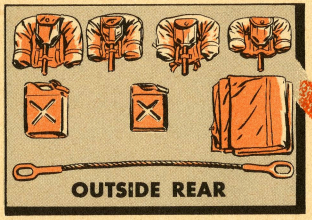
Finding the right spot for your M48 tank's on-vehicle-material? It's a snap when y'know how—and where.

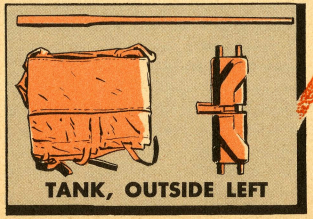
Here're two stowage charts and a check list that should help to set things straight—so's you'll always lay a hand on the right thing at the right time.

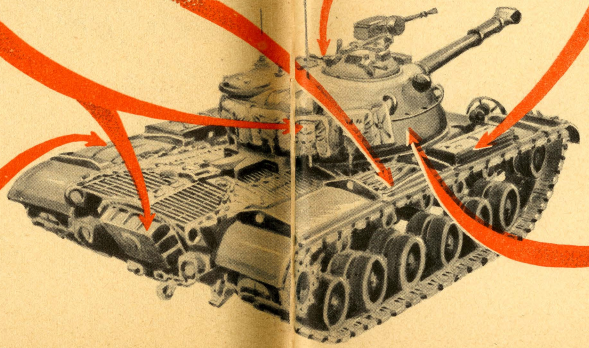
Items are shown grouped by stowage area. For more specific data—like part name and quantity—just read on, McStuff.

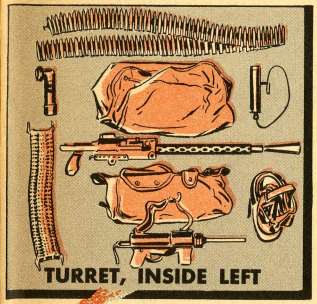
STOWAGE CHART
RIGHT REAR VIEW

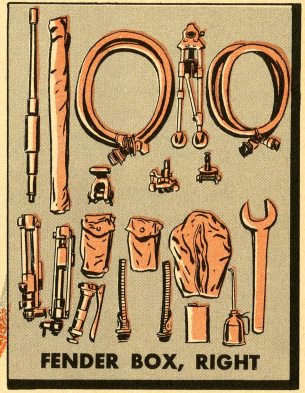


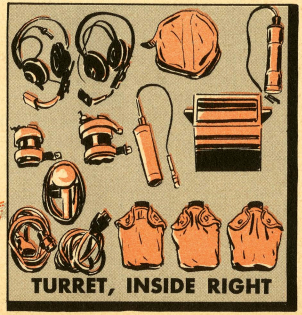




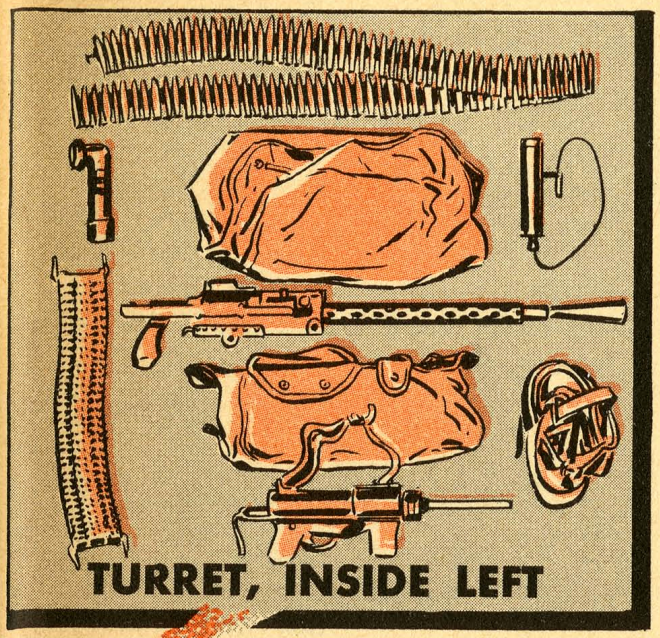




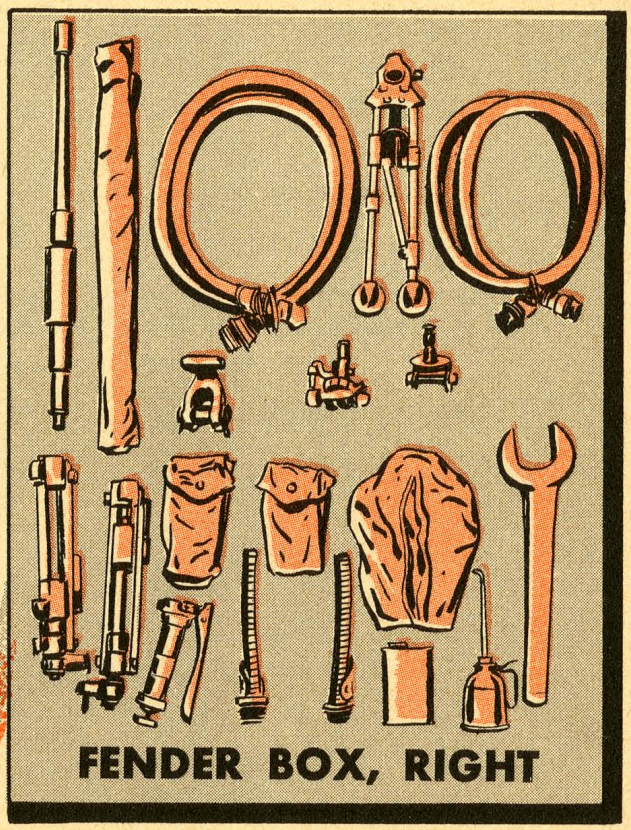




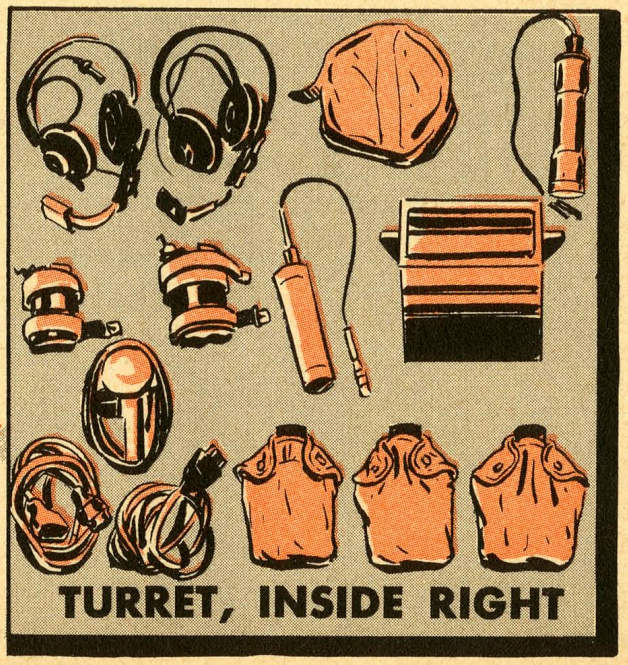
M48 TANK OVM



TURRET, INSIDE LEFT

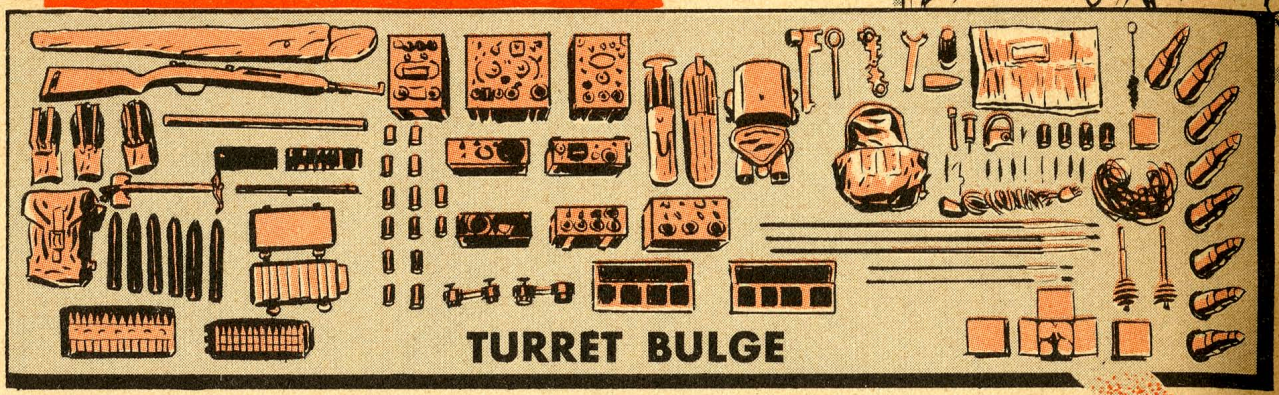


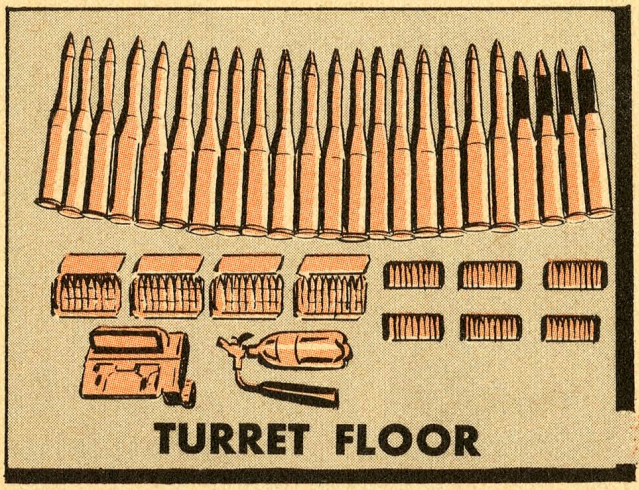
FENDER BOX, RIGHT

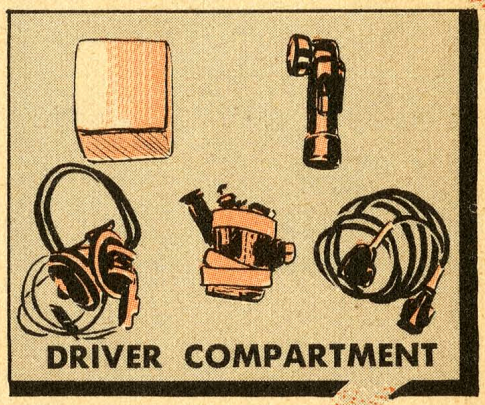


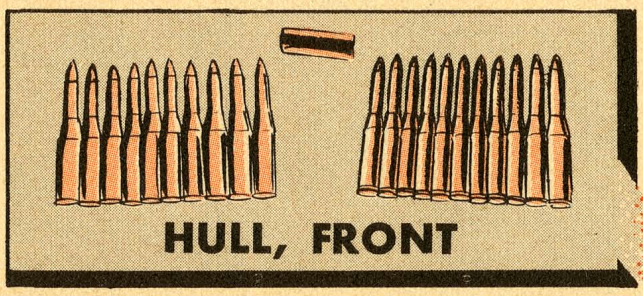
TURRET, INSIDE RIGHT

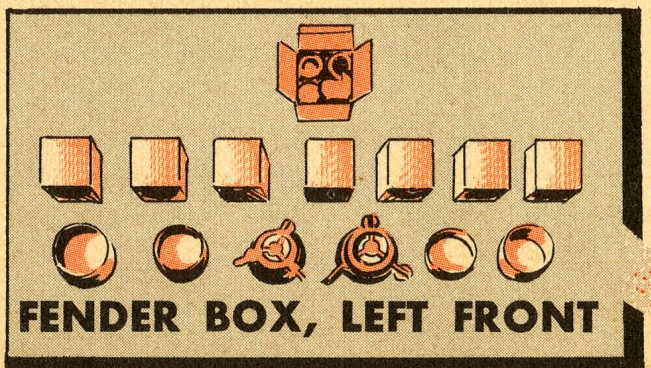
STOWAGE CHART
LEFT FRONT VIEW



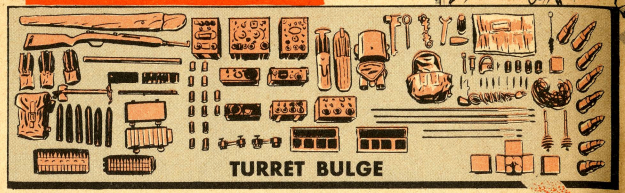


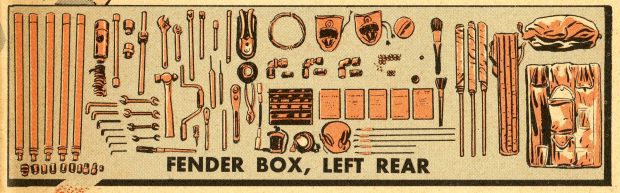


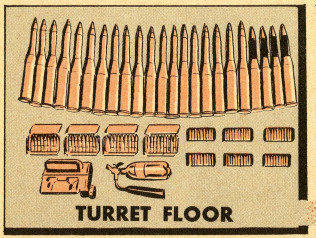


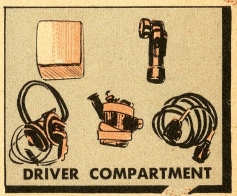


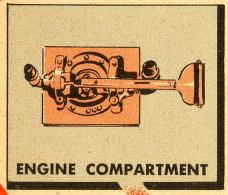
STOWAGE CHART
LEFT FRONT VIEW

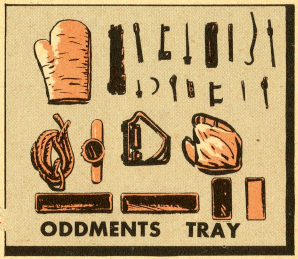


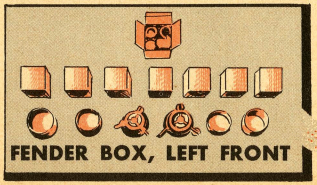


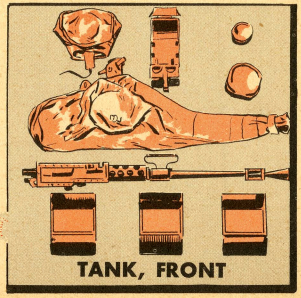


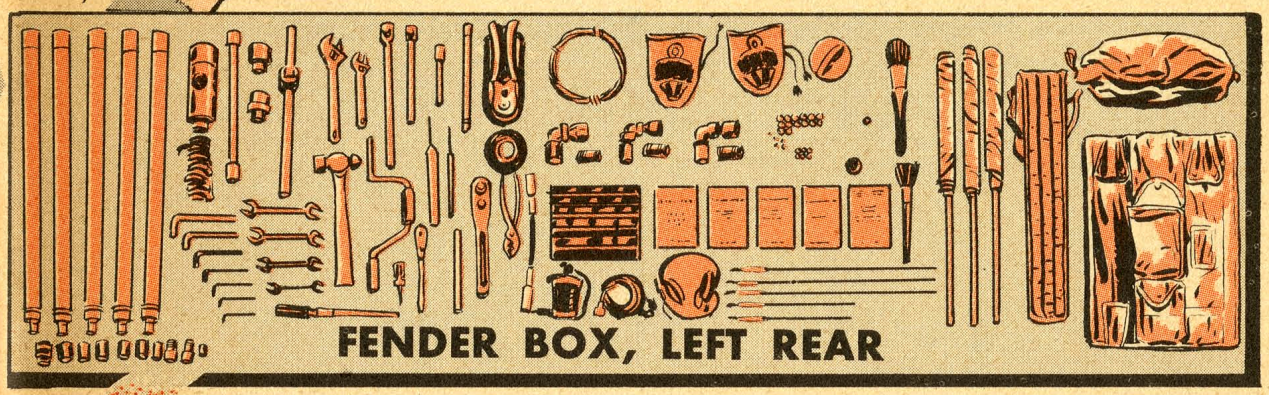




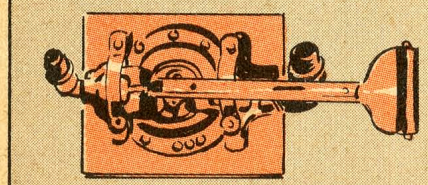




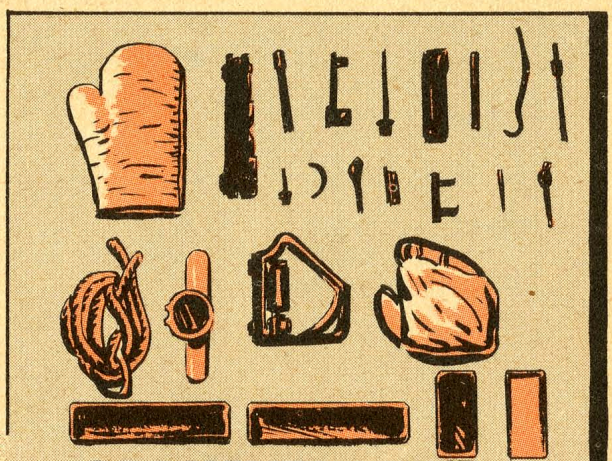




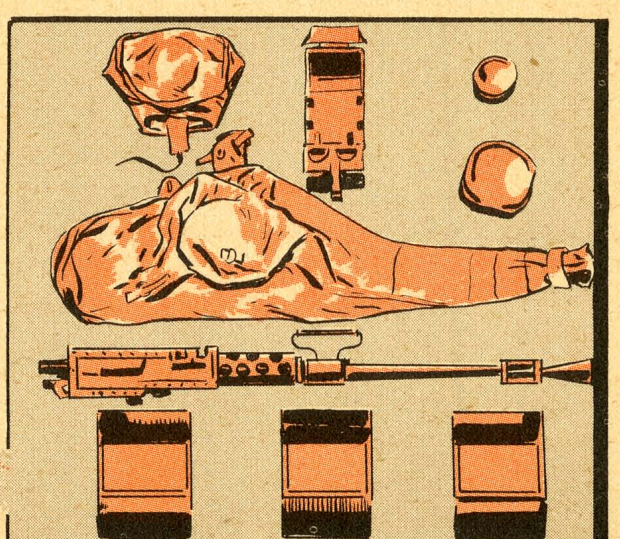
FENDER BOX, LEFT REAR



ENGINE COMPARTMENT



ODDMENTS TRAY



TANK, FRONT

CHECK LIST

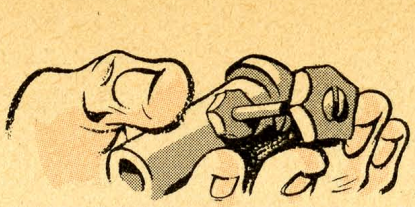
WHERE Y'SEE AN ASTERISK (*) BEFORE AN ITEM, IT'S NOT SHOWN ON THE STOWAGE CHARTS.

NAME OF PART	NO. PER VEHICLE	WHERE CARRIED
ARMAMENT		
GUN, 90-mm, M41	1	ON GUN MOUNT
*MOUNT, combination gun, 90-mm, T148	1	INSTALLED IN TURRET
CARBINE, cal .30, M1	1	INSIDE TURRET ABOVE RADIO
GUN, submachine, cal .45, M3A1	1	LEFT TURRET WALL, ABOVE LOADER
GUN, machine, cal .50, Browning, M2, HB, flexible	1	ON MOUNT ON TOP OF TURRET
OR		
*GUN, machine, cal .50, Browning, M2, HB, TT, w/o retracting slide (use w/mount, A097-8683227)	1	ON COMMANDER'S CUPOLA
*MOUNT, machine gun, cal .50	1	ON COMMANDER'S CUPOLA
OR		
*MOUNT, machine gun, TT, cal .50	1	ON COMMANDER'S CUPOLA
OR		
*MOUNT, machine gun, AA, cal .50	1	ON COMMANDER'S CUPOLA
GUN, machine, cal .30, Browning, M1919A4E1, flexible	1	MOUNTED ON COMBINATION GUN MOUNT
MOUNT, tripod, machine gun, cal .30, M2	1	RIGHT FENDER BOX
SIGHTING and FIRE CONTROL		
BINOCULAR, M17A1	1	IN RACK, BEHIND COMMANDER
*DRIVE, ballistic, T24E2	1	TURRET CEILING
*FINDER, range, T46E1	1	TURRET CEILING
*INDICATOR, azimuth, T28	1	RIGHT TURRET WALL
LIGHT, instrument, M30	1	IN TURRET ABOVE GUN MOUNT
*MOUNT, periscope, T184	1	ON CEILING
*MOUNT, telescope, T191	1	RIGHT COAXIAL MOUNT
PERISCOPE, M17	5	FOUR INSTALLED AROUND COMMANDER'S CUPOLA; ONE SPARE BEHIND COMMANDER'S SEAT
*PERISCOPE, M20	1	IN MOUNT, PERISCOPE, T184
OR		
*PERISCOPE, M20A1	1	IN MOUNT, PERISCOPE, T184
*PERISCOPE, T36	4	THREE INSTALLED FOR DRIVER; ONE SPARE RIGHT FRONT OF HULL
*PERISCOPE, T41 (night vision periscope, to replace one driver's periscope)	1	ON TURRET PLATFORM
*QUADRANT, elevation, M13	1	ON BALLISTIC DRIVE, T24E2
QUADRANT, gunner's, M1, w/case, carrying, M18	1	IN BRACKET, IN TURRET
OR		
*QUADRANT, gunner's, M1A1, w/case, carrying	1	IN BRACKET, IN TURRET
SETTER, fuse	1	IN ODDMENTS TRAY
TABLE, firing, FT-90	1	IN PAMPHLET BAG
*TELESCOPE, T156E1	1	IN MOUNT, TELESCOPE, T191

TOOLS and EQUIPMENT for TANK, M48

NAME OF PART	NO. PER VEHICLE	WHERE CARRIED
BAG, pamphlet, assy	1	IN TURRET BUSTLE BEHIND COMMANDER
BAG, tool, empty, 8-1/2-in high, 6-in wide, 19-1/2-in lg	1	LEFT REAR FENDER BOX
BAR, cross, socket wrench, rd, solid, 7/16 in diam, 8-in lg	1	IN TOOL BAG
BAR, crow, pinch pt, 1-1/4-in diam, 60-in lg	1	ON LEFT FRONT FENDER BOX
BAR, jimmy, stght, 1/2-in blade width, 11-7/8-in lg	1	TURRET CEILING OVER RADIO
BAR, socket wrench, extn, 1/2-in sq-drive, 5-in lg	1	IN TOOL BAG
BAR, socket wrench, extn, 1/2-in sq-drive, 10-in lg	1	
BAR, socket wrench, extn, 3/4-in sq-drive, 8-in lg	1	
BAR, socket wrench, extn, 3/4-in sq-drive, 16-in lg	1	
*BASE, mounting, refueling pump, hand, assy	1	IN ENGINE COMPARTMENT
*BOX, grenade, assy	1	IN RACK BEHIND COMMANDER
BOX, spare bulbs	1	IN RACK BEHIND COMMANDER
CABLE, towing, 1-1/8-in wire rope diam, 10 ft lg (w/2 eyes, 1-1/2x3-1/4-in)	2	ON REAR HULL PLATE
CHISEL, machst, hand, cold, S, 3/4-in cut, 7-in lg	1	IN TOOL BAG
*CLIP, locking, S, 1/4-in diam wire, 1.250 pin groove, 3-in over-all lgh	1	RIGHT FENDER BOX
COVER, azimuth indicator, assy	1	ON AZIMUTH INDICATOR
COVER, canvas, 12x12 ft	1	ON TURRET IN BUSTLE RACK
COVER, grille, front, center, assy	1	
COVER, grille, rear, assy	1	
COVER, grille, side, left, assy	1	RIGHT REAR FENDER
COVER, grille, side, right assy	1	
COVER, grille, side, right front, assy	1	
DIAGRAM, strap location	1	IN PAMPHLET BAG
EXTENSION (adapter), lubr gun (flex hose, sleeve type), 12-in lg	1	IN TOOL BAG
FILE, AS, hand, sm cut, 10-in	1	
FILE, AS, three sq, sm cut, 6-in	1	
FIXTURE, track connecting and link pulling, L and RH (in pairs)	1	RIGHT FENDER BOX
GUN, lubr, hand lever operated, high pressure, 15-oz. cap	1	IN RIGHT FENDER BOX
HAMMER, machst, ball peen, 2 lb	1	IN TOOL BAG
HANDLE, socket wrench, hinged, 1/2-in sq-drive, 18-in lg	1	
HANDLE, socket wrench, rtc, rvrs, 1/2-in sq-drive, 11-in lg	1	
HANDLE, socket wrench, "T" sliding, 1/2-in sq-drive 9-in lg	1	
HANDLE, socket wrench, "T" sliding, 3/4-in sq-drive, 17-in lg	1	
HOOK, attaching, tow cable	1	RIGHT FENDER BAR
*LIGHT, magneto, timing	1	IN TOOL BAG
OILER, pump, S, bent spout, 1-pt cap	1	IN RIGHT FENDER BOX
*PADLOCK, keyed interchangeably, br body, 1-3/4-in, w/clevis, set of 4 padlocks and 6 keys	1 (set)	THREE ON FENDER BOXES, ONE ON LOADER'S HATCH
PIN, grooved, headless, S, cd/zn finish, 4-5/8-in nom lgh (use w/HOOK, G104-7068219)	1	RIGHT FENDER BOX
PLIERS, comb, slip jt, w/cutter, 8-in lg	1	IN TOOL BAG
PUMP, gasoline, portable, hand-lever operated, w/suction and dispensing hoses	1	PUMP IN ENGINE COMPARTMENT HOSES IN RIGHT FENDER BOX

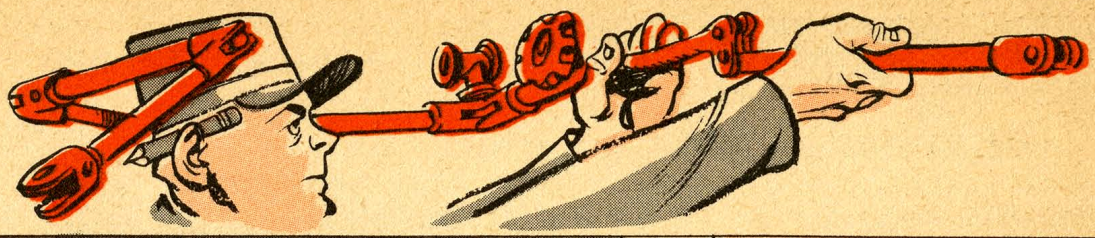
*NOT SHOWN IN STOWAGE CHART



NAME OF PART	No. PER VEHICLE	WHERE CARRIED
TOOLS and EQUIPMENT for TANK, M48, continued		
SCREWDRIVER, comm, normal duty, 6-in blade, 5/16-in tip, 11-1/2-in lg	1	IN TOOL BAG (IN RIGHT FENDER BOX)
SCREWDRIVER, sp purpose, 1-1/2-in blade, 5/32 x 0.030-in tip, 4-in lg	1	IN TOOL BAG (IN RIGHT FENDER BOX)
SCREWDRIVER, machst, extra hv-duty, 5-in blade, 1/2-in tip, 9-1/2-in lg	1	IN TOOL BAG (IN RIGHT FENDER BOX)
TAPE, friction, general use, black, width 3/4-in, 8-oz roll	1	IN TOOL BAG (IN RIGHT FENDER BOX)
WIRE, S, carbon, low annealed soft, black, diam 0.080-in (10 ft)	bulk	IN TOOL BAG (IN RIGHT FENDER BOX)
WRENCH, adj, sgle open end, 15/16-in jaw opng, 8-in lg	1	IN TOOL BAG (IN RIGHT FENDER BOX)
WRENCH, adj, sgle open end, 1-5/16-in jaw opng, 12-in lg	1	IN TOOL BAG (IN RIGHT FENDER BOX)
WRENCH, engrs, dble open end, 15-deg angle, alloy-S, 5/16 and 3/8-in opngs	1	IN TOOL BAG (IN RIGHT FENDER BOX)
WRENCH, engrs, dble open end, 15-deg angle, alloy-S, 7/16 and 1/2-in opngs	1	IN TOOL BAG (IN RIGHT FENDER BOX)
WRENCH, engrs, dble open end, 15-deg angle, spear-hd, alloy-S, 9/16 and 11/16 in opngs	1	IN TOOL BAG (IN RIGHT FENDER BOX)
WRENCH, engrs, dble open end, 15-deg angle, spear-hd, alloy-S, 5/8 and 3/4-in opngs	1	IN TOOL BAG (IN RIGHT FENDER BOX)
WRENCH, set or cap screw (hollow-hd), hex, 1/8-in hex, 1/4-in set screw, No. 8 cap screw	1	IN TOOL BAG (IN RIGHT FENDER BOX)
WRENCH, set or cap screw (hollow-hd), hex, 5/32-in hex, 5/16-in set screw, No. 10 and 12 cap screw	1	IN TOOL BAG (IN RIGHT FENDER BOX)
WRENCH, set or cap screw (hollow-hd), hex, 3/16-in hex, 3/8-in set screw, 1/4-in cap screw	1	IN TOOL BAG (IN RIGHT FENDER BOX)
WRENCH, set or cap screw (hollow-hd), hex, 1/4-in hex, 1/2-in and 9/16-in set screw	1	IN TOOL BAG (IN RIGHT FENDER BOX)
WRENCH, set or cap screw (hollow-hd), hex, 5/16-in hex, 5/8-in set screw, 3/8-in and 7/16-in cap screw	1	IN TOOL BAG (IN RIGHT FENDER BOX)
WRENCH, set or cap screw (hollow-hd), hex, 3/8-in hex, 3/4-in set screw, 1/2-in and 9/16-in cap screw	1	IN TOOL BAG (IN RIGHT FENDER BOX)
WRENCH, set or cap screw (hollow-hd), hex, 5/8-in hex, 1-1/4-in set screw, 1-in cap screw	1	IN TOOL BAG (IN RIGHT FENDER BOX)
WRENCH, socket, 1/2-in sq-drive, 8 pt, 3/8-in opng	1	IN TOOL BAG (IN RIGHT FENDER BOX)
WRENCH, socket, 1/2-in sq-drive, 12 pt, 7/16-in opng	1	IN TOOL BAG (IN RIGHT FENDER BOX)
WRENCH, socket, 1/2-in sq-drive, 12 pt, 1/2-in opng	1	IN TOOL BAG (IN RIGHT FENDER BOX)
WRENCH, socket, 1/2-in sq-drive, 12 pt, 9/16-in opng	1	IN TOOL BAG (IN RIGHT FENDER BOX)
WRENCH, socket, 1/2-in sq-drive, 12 pt, 5/8-in opng	1	IN TOOL BAG (IN RIGHT FENDER BOX)
WRENCH, socket, 1/2-in sq-drive, 12 pt, 3/4-in opng	1	IN TOOL BAG (IN RIGHT FENDER BOX)
WRENCH, socket, 1/2-in sq-drive, 12 pt, 7/8-in opng	1	IN TOOL BAG (IN RIGHT FENDER BOX)
WRENCH, socket, 1/2-in sq-drive, 12 pt, 1-1/8-in opng	1	IN TOOL BAG (IN RIGHT FENDER BOX)
WRENCH, socket, 3/4-in sq-drive, 12 pt, 15/16-in opng	1	IN TOOL BAG (IN RIGHT FENDER BOX)
WRENCH, socket, 3/4-in sq-drive, 12 pt, 1-1/4-in opng (center guide bolt) (use w/bar, 41-B-154)	1	IN TOOL BAG (IN RIGHT FENDER BOX)
WRENCH, socket, 3/4-in sq-drive, 12 pt, 1-5/16-in opng	1	IN TOOL BAG (IN RIGHT FENDER BOX)
WRENCH, socket, 3/4-in sq-drive, 12 pt, 1-1/2-in opng	1	IN TOOL BAG (IN RIGHT FENDER BOX)
*WRENCH, sgle, open-end, 15-deg angle, 3-3/16-in opng, 28-1/8-in lg	1	IN TOOL BAG (IN RIGHT FENDER BOX)
WRENCH, track adjusting	1	RIGHT FENDER BOX

NAME OF PART	No. PER VEHICLE	WHERE CARRIED
TOOLS and EQUIPMENT for GUN, 90-MM, M41		
*ADAPTER, bore brush and wiper ring	1	LEFT REAR FENDER BOX
*BOOK, record, weapon, part I and II	1	IN PAMPHLET BAG
BRUSH, bore, 90-mm, M19	2	LEFT REAR FENDER BOX
COVER, breech, 90-mm gun, assy	1	ON GUN
COVER, canvas, brush, bore, M518	2	ON BORE BRUSH
COVER, gun book, M539	1	IN PAMPHLET BAG
COVER, muzzle, assy	1	ON GUN
EYE, lifting (breechblock removing)	1	IN ROLL, GUN TOOLS AND EQUIPMENT
HEAD, rammer, unloading, M16 (diam 3.52-in, 10-1/8-in lg)	1	LEFT REAR FENDER BOX
OIL, hydraulic, petroleum base (MIL-L-5606)	1	RIGHT FENDER BOX
RING, wiper	1	LEFT REAR FENDER BOX
ROD, push, assembling and disassembling shaft, diam 1/2-in, 6-in lg, pt 1/8-in	1	IN ROLL, GUN TOOLS AND EQUIPMENT
ROLL, gun tools and equipment, assy	1	TURRET BUSTLE, BELOW RADIO
ROPE, manila, stranded, 3-strand, 6-ft length w/tied ends for use w/eye, lifting	1	IN ODDMENTS TRAY
STAFF SECTION, T3 (alum)	5	LEFT REAR FENDER BOX
TOOL, breechblock removing	1	IN ROLL, GUN TOOLS AND EQUIPMENT
TOOL, ramming and extracting	1	UNDER RADIO
WRENCH, spur, face, pin type, c to c of pins 2-in, diam of pin 1/4-in, 6-3/4-in lg	1	IN ROLL, GUN TOOLS AND EQUIPMENT
TOOLS and EQUIPMENT for MOUNT, COMBINATION GUN, T148		
BAG, empty ctg, cal .30 and .50 machine gun	2	ON T148 COMBINATION MOUNT
*GUN, lubr, 8-oz cap	1	IN ROLL, GUN TOOLS AND EQUIPMENT
TOOLS and EQUIPMENT for GUN, MACHINE, CAL .50, BROWNING, M2, HB (flexible or turret type)		
BRUSH, cleaning, cal .50, M4	4	IN ROLL, GUN TOOLS AND EQUIPMENT
CASE, jointed cleaning rod and brush, cal .50, M15	1	WITH ROLL, GUN TOOLS AND EQUIPMENT
COVER, machine gun, cal .50 (for flexible gun only)	1	ON GUN
COVER, spare bbl, cal .50	2	ON SPARE BARREL
EXTRACTOR, ruptured ctg case, cal .50	1	IN ODDMENTS TRAY
GAGE, headspace and timing, cal .50	1	IN ROLL, GUN TOOLS AND EQUIPMENT
HIDER, flash (M2)	1	ON CAL .50 MACHINE-GUN
ROD, cleaning, jointed, cal .50, M7	1	IN CASE, M15
WRENCH, muzzle gland and adj screw	1	IN ROLL, GUN TOOLS AND EQUIPMENT
TOOLS and EQUIPMENT for GUN, MACHINE, CAL .30, BROWNING, M1919A4E1, (flexible)		
BRUSH, cleaning, cal .30, M2	4	IN ROLL, GUN TOOLS AND EQUIPMENT
BRUSH, cleaning, chamber, M6 (bristle)	2	IN ROLL, GUN TOOLS AND EQUIPMENT
CASE, cleaning rod, cal .30, M1	1	WITH ROLL, GUN TOOLS AND EQUIPMENT
COVER, spare bbl	2	ON SPARE BARREL
EXTRACTOR, ruptured ctg, MK IV	2	IN ODDMENTS TRAY
HIDER, flash, cal .30, M6, w/spare parts	1	ON GUN
ROD, cleaning, jointed, M1 (3 sections w/HDL)	1	IN CASE, CLEANING ROD, M1
WRENCH, comb, M6	1	IN ROLL, GUN TOOLS AND EQUIPMENT

*NOT SHOWN IN STOWAGE CHART



NAME OF PART	NO. PER VEHICLE	WHERE CARRIED
EQUIPMENT for MOUNT, TRIPOD, MACHINE GUN, CAL .30, M2		
HOOD, tripod mount	1	ON TRIPOD MOUNT
EQUIPMENT for CARBINE, CAL .30, M1		
CASE, ammo carrying	1	IN RACK BEHIND COMMANDER INSIDE TURRET
EQUIPMENT for GUN, SUBMACHINE, CAL .45, M3A1		
CASE, ammo carrying	1	IN RACK BEHIND COMMANDER INSIDE TURRET
TOOLS and EQUIPMENT for SIGHTING and FIRE CONTROL		
*LIGHT, instrument for az ind	1	RIGHT TURRET WALL
LIGHT, instrument, M36, for tel mt	1	ON TELESCOPE MOUNT
FILLER, assy, for periscope, M20	1	IN ROLL, GUN TOOLS AND EQUIPMENT
LIGHT, instrument, M36 for M20	1	TURRET CEILING
SPARE PARTS for TANK, M48		
CONNECTOR, fire extinguisher, cylinder valve to nozzle line	3	IN TOOL BAG
FITTING, LUBRICATION, hyd, surface check, stght, 1/8 NPTF, short male	6	IN TOOL BAG
LAMP, elec, incand, min, 3-v, sgle-tun-fil No. 323 for az ind	3	IN BOX 7021398
LAMP, elec, incand, min, 24-28-v, sgle-tun-fil, No. 623 for dome and inst	2	IN BOX 7021398
LAMP, elec, incand, min, 24-28-v, sgle-tun-fil, No. 1251 (B.O.)	4	IN BOX 7021398
*NIPPLE, TUBE, refrigeration and marine br, 3/4-in	3	IN TOOL BAG
PLUG, PIPE, automotive, hex-hd, 1/4-in	12	IN TOOL BAG
*PLUG, PIPE, automotive, sq-socket, M1, 1-in (filler, final drive)	2	IN TOOL BAG
PLUG, PIPE, automotive, sq-hd, S, 3/8-in (filler compensating idler)	1	IN TOOL BAG
SHOE, TRACK ASSY	2	RIGHT AND LEFT FRONT FENDERS
PARTS for CORD, LIGHT, EXTENSION		
*LAMP, elec, incand, min, 24-28-v, sgle-tun-fil, No. 1683	1	IN CORD, LIGHT EXTENSION

NAME OF PART	NO. PER VEHICLE	WHERE CARRIED
SPARE PARTS for GUN, 90-MM, M41		
MECHANISM, percussion, assy	1	IN ROLL, GUN TOOLS AND EQUIPMENT (TURRET BUSTLE BELOW RADIO)
GASKET, cop, soft, 0.56 ID, 0.25 thk (recoil piston brg sleeve plug)	1	
PLUG, drain and fill, S, sq-hd, 1/2-20NF-3 (recoil mechanism filler)	1	
SPARE PARTS for GUN, MACHINE, CAL .50, BROWNING, M2 HB (flexible or turret type)		
BARREL, assy	1	IN RIGHT FENDER BOX
PARTS, spare, w/box, cal .50 machine gun, combat vehicle	1	IN BOX IN ODDMENTS TRAY
Composed of:		
1 BOLT, alternate feed, assy		1 PIN, cocking lever, assy
1 BOX, spare parts (empty)		1 PIN, firing
1 EXTENSION, firing pin, assy		1 SEAR
1 EXTRACTOR, assy		1 SLIDE, sear
1 LEVER, cocking		1 SPRING, sear
1 LOCK, accelerator stop		1 STOP, accelerator
		1 SWITCH, bolt
SPARE PARTS for MOUNT, MACHINE GUN, AA, CAL .50		
*HANDLE, gun charging	1	ON CALIBER .50 MOUNT
SPARE PARTS for MOUNT, MACHINE GUN, TT, CAL .50		
*BRACKET, assy (for gun)	1	IN ROLL, GUN TOOLS AND EQUIPMENT (TURRET BUSTLE BELOW RADIO)
*CABLE, electric, 21-in lg	2	
*CHARGER, assy	1	
*CHUTE, ejection	1	
*CHUTE, slip, assy	1	
*CLAMP, hose, S, cd or zn-pltd, 4-in (cover)	1	
*CLAMP, ring, S, 3-1/2 ID, 4-1/4 OD (gun cover)	1	
*COVER, canvas (gun)	1	ON GUN
*COVER and CORD, assy (shield)	1	ON GUN
*NUT, jam, hex, lt, S, phos-ctd 1/4-28UNF-2B	2	
*SCREW, machine, fil-bd, drilled hd, dld-f/lkg-wire, No. 10 (0.190)-32NF-2A x 1-1/4	3	IN ROLL, GUN TOOLS AND EQUIPMENT (TURRET BUSTLE BELOW RADIO)
*SCREW, MACHINE, flat-hd, S, phos-ctd, No. 10 (0.190) 32NF-2 x 1/2	2	
*SCREW, MACHINE, rh-hd, S, cd or sn-pltd, No. 10 (0.190)-32NF—2A x 3/16	1	
*SOLENOID	1	
*STRAP, S, 0.1196 thk w/2 drilled countersunk holes	1	
*STUD, bolt, S, 1.43-in lg	1	
*SUPPORT, gun, assy (front)	1	
*TRIGGER, assy	1	
*WASHER, lock, split, extra hv, No. 10 screw size	1	

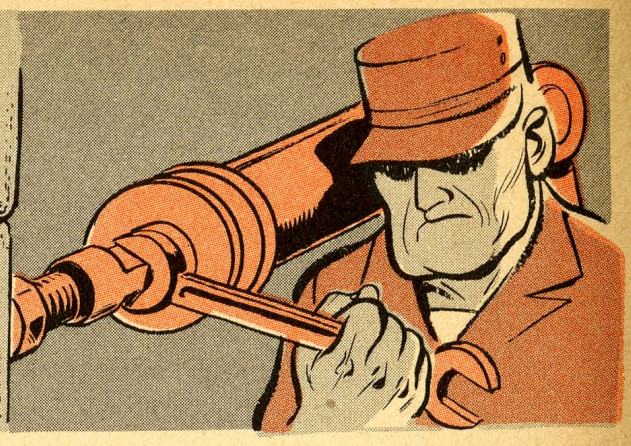
*NOT SHOWN IN STOWAGE CHART

NAME OF PART	NO. PER VEHICLE	WHERE CARRIED
SPARE PARTS for GUN, MACHINE, CAL .30, BROWNING, M1919A4E1, (flexible)		
BARREL, assy	2	IN TURRET ABOVE RADIO
PARTS, spare, w/box, cal .30 machine gun, combat vehicle	1	IN BOX IN ODDMENTS TRAY
Composed of:		
1 BOLT, assy		
1 BOX, spare parts (empty)		
1 EXTRACTOR, assy		
1 LEVER, cocking		
1 PIN, cocking lever		
1 PIN, firing, assy		
1 ROD, driving spring, assy		
1 SEAR		
1 SPRING, driving		
1 SPRING, sear, assy		
1 TRIGGER		
SPARE PARTS for SIGHTING and FIRE CONTROL		
*LAMP, elec, incand, min, 24-28-v, No. 313, for computer	2	IN SPARE BULB BOX, IN RACK BEHIND COMMANDER
*LAMP, elec, incand, min, 2-3-v, No. 43, for ballistic drive	2	
*LAMP, elec, incand, min, 24-28-v, sgle-tun-fil, No. 313, for range finder	3	
*LAMP, elec, 24-28-v, 21 cp, sgle-bayonet base, GE No. 1203-S-8 bulb, for range finder	7	
*LAMP, elec, incand, min, 3-v, No. 323, 0.19 amp, for az ind	4	
*LAMP, elec, incand, min, 3-v, sgle-tun-fil, No. 1325, for M36 light	2	
*LAMP, elec, incand, min, 24-28-v, sgle-tun-fil, No. 313, for T184 gun mount	2	
*LAMP, elec, incand, min, 24-28-v, sgle-tun-fil, No. 313, for tel mt	2	
*HEAD, assy for periscope, T41	1	ON TURRET PLATFORM
*SEAL for periscope, M36	1	IN BOX WITH HEAD ASSEMBLY
HEAD, assy for periscope, M20	1	IN BOX BELOW GUNNER'S SEAT
MISCELLANEOUS EQUIPMENT		
AXE, hdl, chopping, sgle bit, std grade, wt 4 lb	1	IN RACK, ON LEFT FENDER
BATTERY, dry cell, 1-1/2-v, 1-1/4-in diam x 1-1/4-in lg, BA-30	14	SIX IN FLASHLIGHTS; EIGHT IN INSTRUMENT LIGHTS

NAME OF PART	NO. PER VEHICLE	WHERE CARRIED
MISCELLANEOUS EQUIPMENT, continued		
CANTEEN, M1910 w/cup and cover	4	ONE IN HULL; THREE IN TURRET
CARRIER, wire cutter, M1938	1	
CORD, light extn, inspection	1	IN TOOL BAG (IN LEFT REAR FENDER BOX)
CUTTER, wire, M1938	1	IN TOOL BAG (IN LEFT REAR FENDER BOX)
EXTINGUISHER, fire, carbon dioxide, shatterproof, 5 lb, permanent shutoff, hand	1	ON TURRET PLATFORM
FLAG SET, M238	1	IN LEFT REAR FENDER BOX
composed of: 1 CASE, CS-90; 1 FLAG, MC-273; 1 FLAG, MC-274; 1 FLAG, MC-275; 3 FLAGSTAFF, MC-270		
FLASHLIGHT, elec, hand, 2 cell	3	ONE IN DRIVER'S COMPARTMENT; TWO IN TURRET
FORM (envelope), DA 478	1	IN PAMPHLET BAG
HANDLE, mattock, 36 in lg	1	IN RACK ON LEFT FENDER
KIT, first aid, motor vehicle, 12 unit	1	IN FENDER BOX OR BELOW RADIO
*MANUAL, supply, ORD 7 SNL G-254	1	IN PAMPHLET BAG
MANUAL, Technical, 9-7012	1	IN PAMPHLET BAG
MATTOCK, pick, w/o hd, wt 5 lb	1	IN RACK ON LEFT FENDER
MITTEN, asbestos, M1942	1	IN ODDMENT TRAY
ORDER, lubr, 9-7012	1	IN PAMPHLET BAG
PACK, field, cargo and combat, M1945	4	ONE IN HULL; THREE IN TURRET
*PANEL MARKER, signal to aircraft, nylon VS17G VX, 17-in lg, 24-in wide	2	LEFT FRONT FENDER BOX
RADIO SETS AND COMBINATIONS (AN/GRC-3, -4, -7, or -8 or AN/VRC-7) (AN/GRC-3 or -7 and AN/ARC-3 or AN/ARC-27) (AUXILIARY INTERPHONE EQUIPMENT AN/VIA-1)		IN SCR MOUNTS
RATIONS, field type fuel capacity 1/2 pt	12	ONE IN DRIVER'S COMPARTMENT; EIGHT IN LEFT FRONT FENDER BOX; THREE IN TURRET
*SUSPENDERS, pack, field, cargo and combat	4	OUTSIDE TURRET BUSTLE
AMMUNITION		
CARTRIDGE, for carbine, cal .30, M1	180	IN CASE, AMMUNITION D7052438 (IN TURRET BULGE)
CARTRIDGE, for machine gun, cal .30	5900	2200 IN TURRET WALL BOX; 2200 IN FLOOR BOX (FRONT); 500 EACH IN THREE FLOOR BOXES UNDER COMMANDER
CARTRIDGE, submachine, cal .45	180	IN CASE, AMMUNITION D7052438 (IN TURRET BULGE)
CARTRIDGE, machine gun, cal .50	500	ONE BOX (100) ON GUN MOUNT; TWO BOXES (200 EACH) ON FLOOR
*GRENADE, hand	8	IN TWO BOXES (D7388581) IN RACK BEHIND COMMANDER
*ROUND, for gun, 90-mm, M41	60	30 IN TURRET; 30 IN HULL

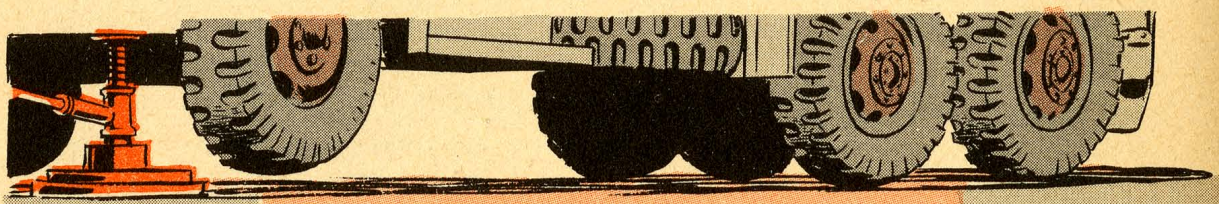
*NOT SHOWN IN STOWAGE CHART

HOW TO DEFLATE A WINDBAG

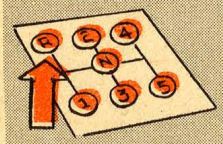


For such a li'l guy, that double-sprag clutch in your 2-1/2-ton Reos and Studebakers can sure be one heckuva big deal. If it starts goofin' off, your front and back wheels start mugwumpin'—goin' this away and that—neither of 'em knowing what the other is doing and not caring much.

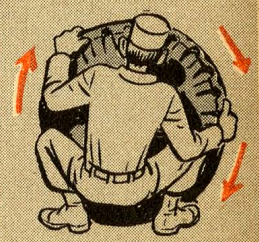
So, it's 'bout time this double-dealing clutch got knocked down off its lofty perch. And here's how to find out if the li'l shot is actin' big:

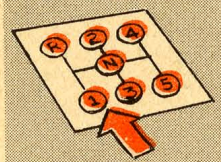


Jack up one front wheel.

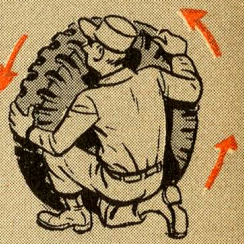


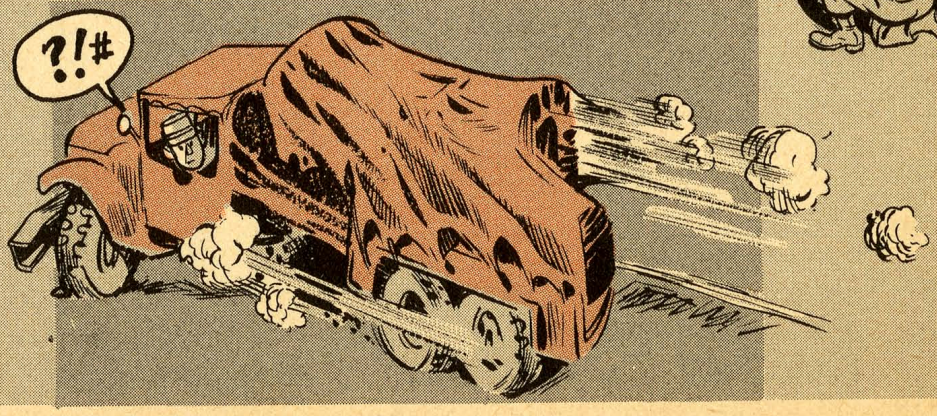
With the transmission in reverse, the wheel should be free to turn backwards. It should be locked against forward motion.





With the transmission in low gear, the jacked-up wheel should turn forward. It should be locked against backward motion.





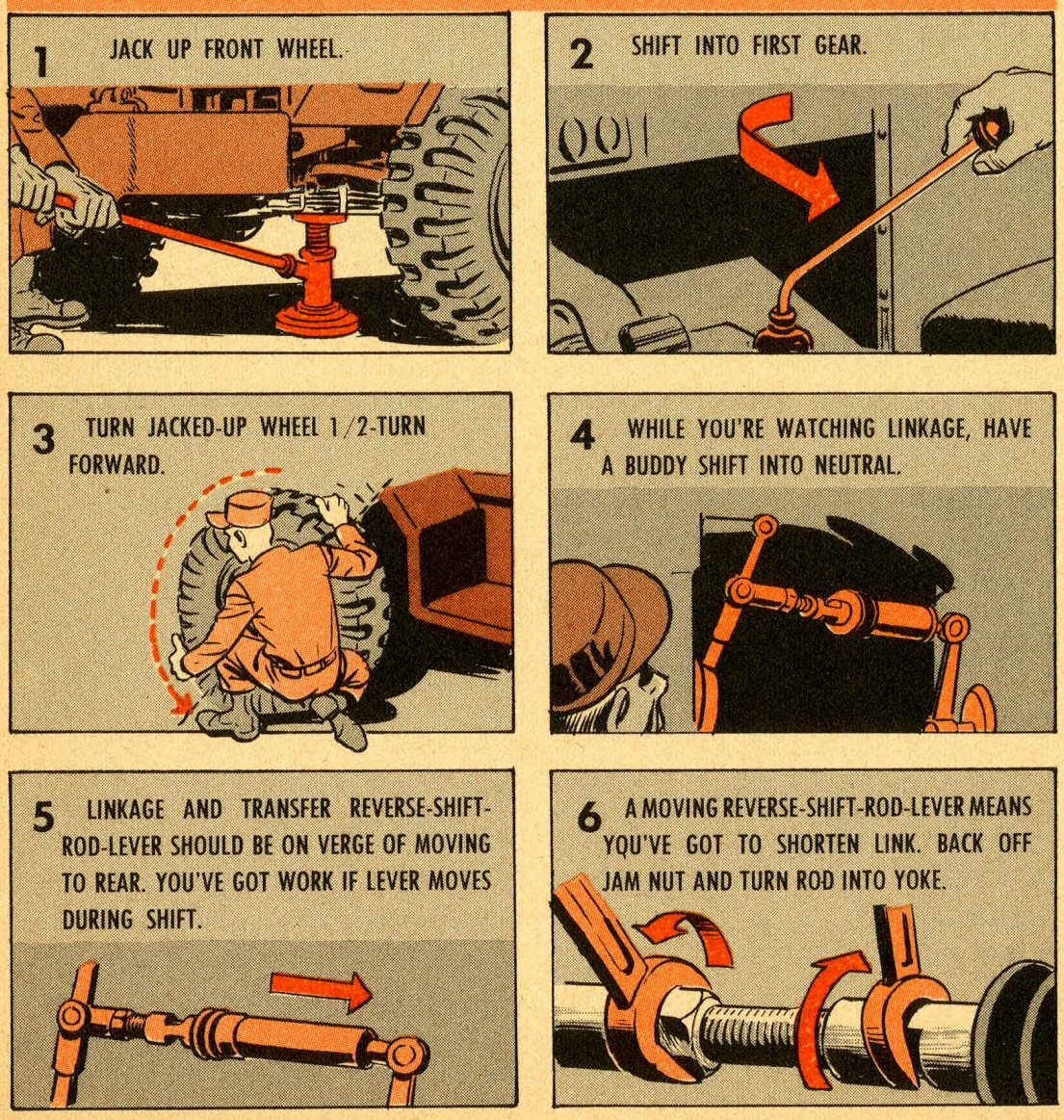
Nine times out of 10 these three steps'll tell you whether to pat the li'l feller on the head for being a good boy; or whether to give the li'l bum a boot where it hurts—right in the shifter-linkage between the transmission and transfer case, where it's losing motion.

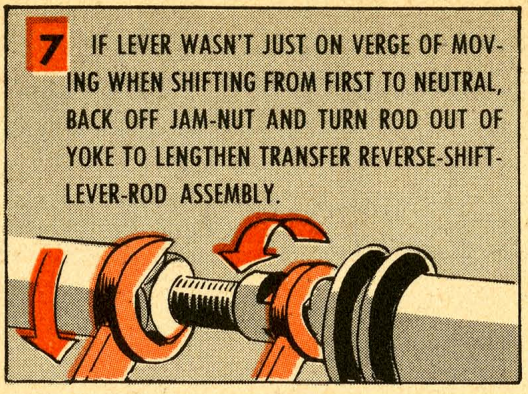
But there may be that one time when you check the thing out and it's OK. Then, you take your vehicle on a cross-country stint and find that your front-wheel drive is not working right in forward or reverse. Wha' happened?

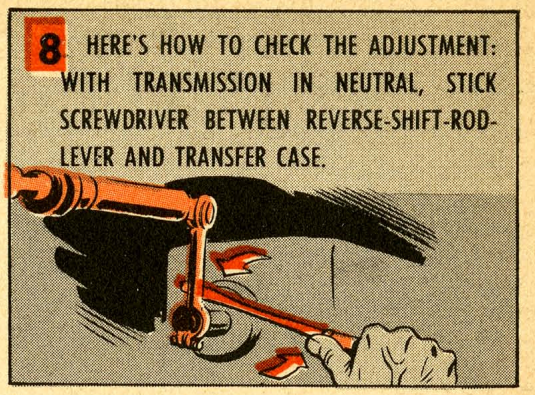
Well, you're getting only partial engagement of the sliding clutch teeth. This is enough to lock your wheels when you make your check. But when that driving torque starts working, the clutch can jump out of engagement.

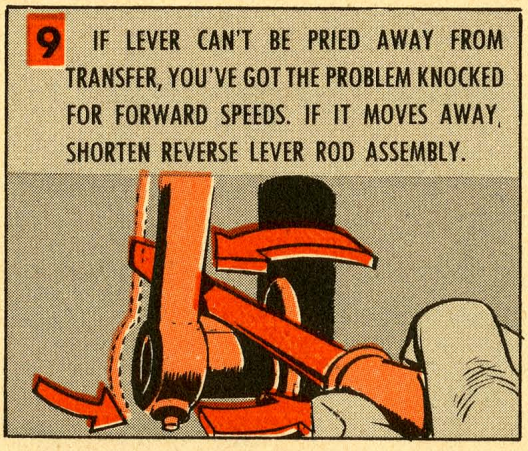
So, if this happens or if things aren't right when you first make your check, it's time to take arms, men (a wrench and screwdriver).

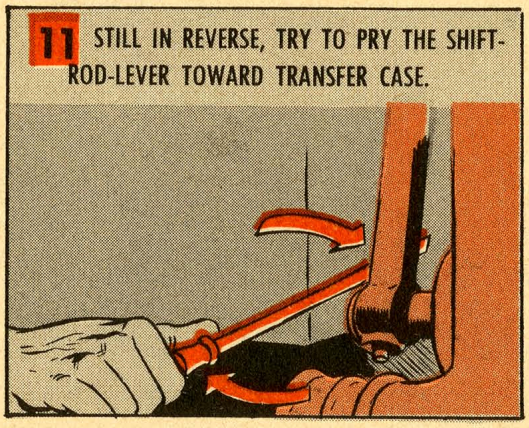
To help you along, follow the pictures.

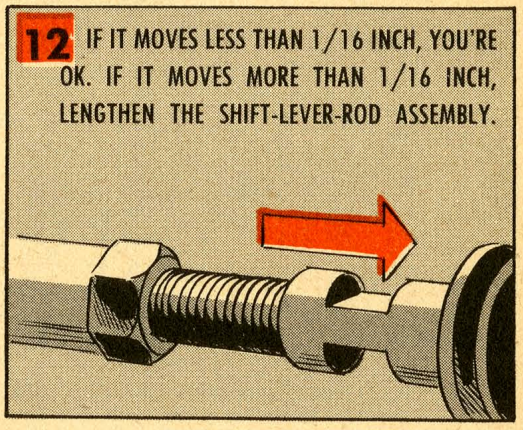






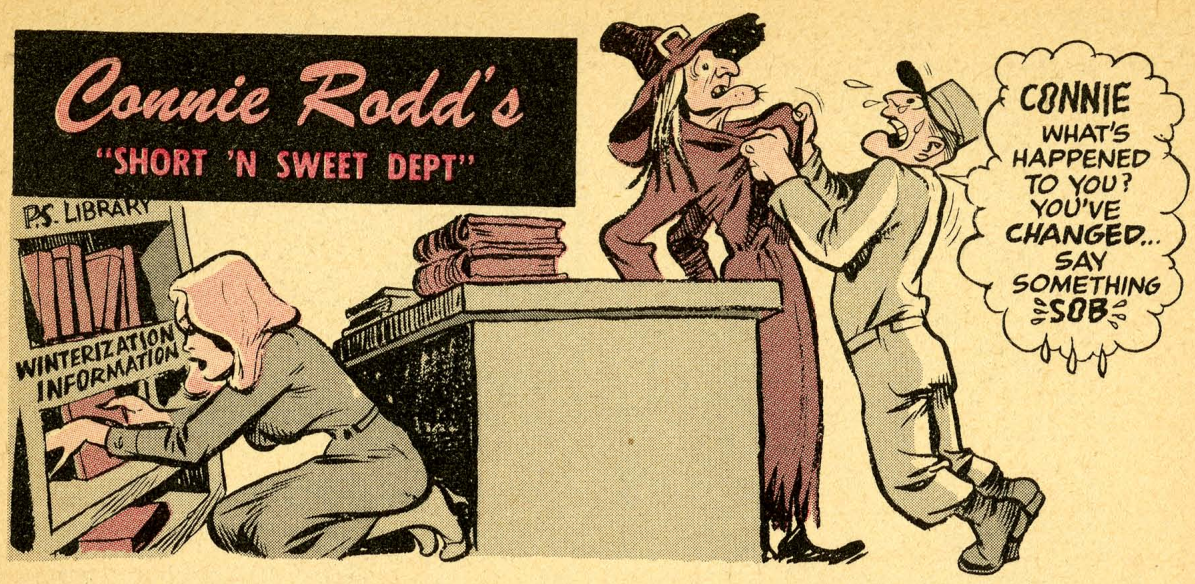






Check the whole operation again for forward speed and reverse speed adjustments like it shows in the pictures. After this final recheck, go through the first check you made—putting the transmission in reverse and moving the wheel backwards, making sure it's locked against forward motion. Then, putting the transmission in low gear and turning the wheel forward, making sure it's locked against backward motion. Also check your TM 9-819.

And that's all. You've turned a mug wump into a pipsqueak.



Getting tire chains

With winter almost here, some of you men will want to know how to get tire chains for your vehicles. Well, here's the scoop—

First off, you need a justification. If winter is going to be tough on your area —snow, slush, ice and mud—you can get them.

Write on your requisition why you need the chains and put it through regular channels. If the commanding general of your particular Army area or overseas command approves, you'll get them.

The same procedure applies to National Guard outfits. But the U. S. Property and Fiscal Officer of each state'll make the decision.

Take a look at the Maintenance Material sections (Section I) of your ORD 7 SNL's to find out which tire chains'll fit which vehicles.

Plug uglies

You got an M41 Bulldog tank with Ord Serial No. 2643 or below? Or an M42 that's No. 914 or under? Then take a close look-see at its final drive magnetic drain plugs—next time you're changing oil.

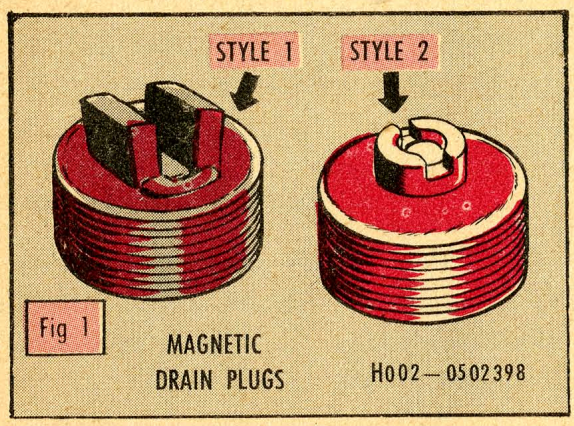
The early-type plugs used aluminum rivets with aluminum washers between the magnet and plug body. They've had a nasty way of coming apart—with unhealthy results to the final drives.

Y'find one of these with a magnet loose enough t'turn with your fingers—better replace it fast. It's Ord Stock No. H002-0502398.

There are two types of replacement plugs stocked under this number (Fig 1). In your order, specify Style I. It's got a square-shaped iron-staked magnet

that stays put. It's best for this job. On your requisition specify: "With square magnet, crimped, not riveted."

But—you may not get it. If you get another Style II plug instead, go ahead and use it. But—keep a sharp eye on the magnet. Check its tightness every time you drain the oil. Get a new plug if and when the magnet gets loose.

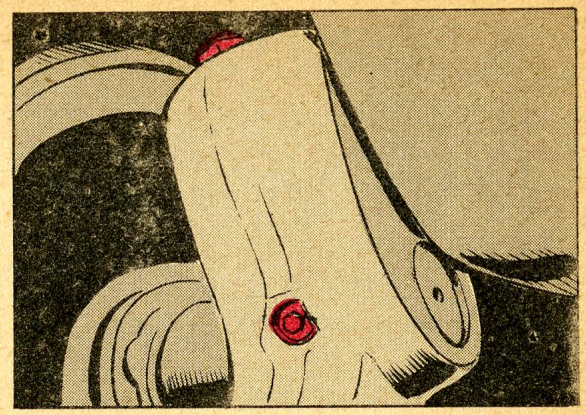


The Style II plug is in the process of redesign. The aluminum rivet's being replaced with a steel self-tapping drive screw to hold the magnet and plug together. You'll see the supply dope on it when it's available. It may even get a new stock number.

Compensating idler arm

The M48 compensating-idler-wheel-arm's got a filler-plug located on the top front side of the arm (looking at it from the front of the tank).

When y'lube this item—at each weekly service—make sure that all mud and sand's knocked off the top of the idler before you take out the plug. Then fill it—till oil runs out the plug opening. The lube order (LO 9-7012) is being changed to knock out the draining requirements.



Should you find leakage between the idler-arm and hull-spindle, likely you need a new link-arm oil-seal (Ord Stock No. HO13-8382454); also an additional spacer (G254-8386658) to fit between the seal and bronze-bearing.

When you spot a leak around the link-arm-spindle-cover (outer bearing)—better order a new gasket. It's Ord Stock No. G254-8387094.

Heatin' it up

A sudden blast of hot air 'gainst a cold and frozen windshield will crack the glass. That hot air has got to be controlled from inside, 'cause Mama Nature sure won't control the cold air from outside.

When warming up your truck's cab in cold weather, turn off those windshield defrosters. Then, start your heater control on **LOW**. Leave it like this until the cab warms up.

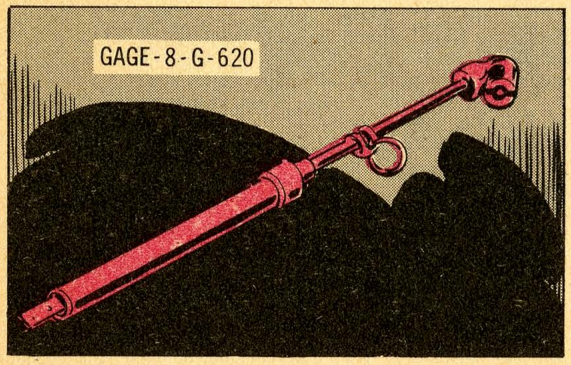
After the cab is warm, and only then, turn on the defrosters. This'll let a warm flow of air get the windshield ready for the coming hot blast. After a couple of minutes of this, you can safely turn the heater to **HIGH** without causing damage. For more info read the 9-2855 series technical bulletins.

Most windshields are made of two-pieces of glass sandwiched together. When the inside half is hit by a blast of hot air, it expands 'fore the outside half. And, then—pop goes the windshield.

Airing it out

All Ordnance tactical-type trucks that have air-compressors are supposed to have a tire-inflating-hose and chuck-gage.

But some 5-ton M39 series, 2-1/2-ton M44 series and 2-1/2-ton M133 series trucks've been short-changed. All they're equipped with are regular air-chucks.

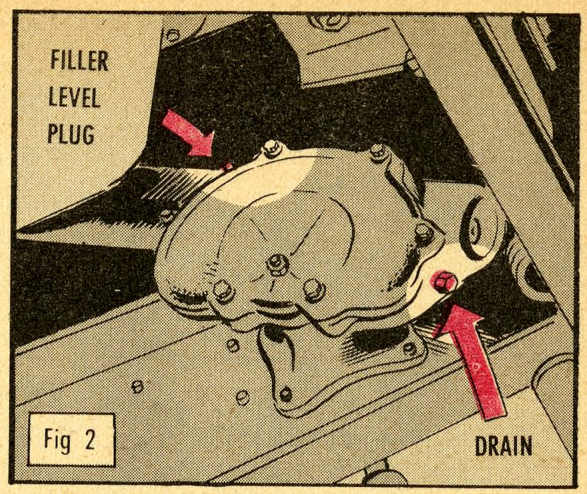


So, you guys running around in these trucks had better check 'em out. If all you've got is a regular air-chuck, you now can get a tire-pressure-gage.

Here's how to do it: Order a Gage, tire pressure, self-contained: dual-chuck foot, Ord Stock No. 8-G-620. The various Ord 7 SNL's are being revised to provide authority. (See SB 9-116.).

Go, go with GO

To fill or not to fill—that's no longer the question. Now, it's just a matter of pouring until the steering gear housing on your M44 series 2-1/2-ton trucks is full.



Next time you take 2-1/2-ton Betsy into her shack for a check up—at her next weekly (B) service—take that plug out of her steering gear housing. If the GO (lubricant, universal, gear) is not up to the top of the filler-level plug (Fig. 2), start pouring until it is.

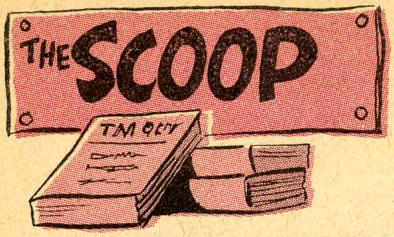
The housing is drained and refilled at every annual (D2) service. When the housing is filled to the top, it'll take about 2-1/2 pints of GO. LO 9-819, which says the most you can fill her is with one pint, is getting a change. The change will come out as LO 9-8022.

Sloppy shafts

Been too many propeller shafts replaced on account of some wear at the spline joints that still had lots of miles in 'em.

What I'm getting at is: Don't change the shafts until you have either noise or vibration to tell you they are too sloppy.

You can keep the wear down to a minimum by checking the condition of the cork or neoprene washer under the dust caps .This won't help wear that has already taken place, but it will keep abrasive dirt out of the spline joints.



HERE'S A LIST OF ADDITIONAL OFFICIAL PUBLICATIONS ON ORDNANCE EQUIPMENT WHICH ARE OF INTEREST TO A LOT OF YOU

SNL's

Ord 7-8 SNL J-198 Grinder, elec: 1/2-hp, 115-v, univ curr, whl size 6-in (Albertson mod 1195) (40-G-128-8) and grinder, elec: 1/2-hp, 115-v, univ curr, whl size 6-in, w/stand (Albertson mod 9115) (40-G-281-10), Apr 55

Ord 7-8 SNL J-231 Grinder, elec: port, 1/2-hp, 115-v, univ curr, whl size 6-in (Black & Decker type 6-in G) (40-G-128-8) and grinder, elec: 1/2-hp, 115-v, univ curr, whl size 6-in w/stand (Black & Decker type 6-in G) (40-G-128-10), Apr 55

Ord 7-8 SNL J-247 Hammer, pneu, rivet, 3-in stroke, 1/2-in cap (Thor Power Tool No. RC-30 mod 5268) (40-H-288), Apr 55

Ord 7-8 SNL J-257 Hammer, pneu, rivet, 3-in stroke, 1/2-in cap (Chicago Pneu Tool mod No. 3 Simplate) (40-H-288), Apr 55

Ord 7-8 SNL J-264 Machine, mill, plain, bench type, 1/2-hp, 110-v, 60-c, sgle-ph, w/equip and access (Atlas Press, mod MF-G) (40-M-38), Apr 55

Ord 7-8 SNL J-285 Boring mach, eng cyl: ptbl, 110-v, 60-c, sgle-ph, 2.6 to 5.343-in cap (Van Norman mods 777 and 777-S) (4910-473-6361), Apr 55

Ord 7-8 SNL J-401 Spray gun, metaliz: air op, oxy and acetye-fired, 0.091 and 0.125 wire cap (Metalizing eng mod 2E) (3375-243-2727), Mar 55

Ord 7-8 SNL J-518 Spray Gun, paint: press feed, 7-CFM (Black Mfg Co, mod No. B-8800-AR-1) (4940-261-8413), spray gun, paint: syphon feed, 4-1/2-CFM (Black Mfg Co mod No. B-5500-AR-1) (4940-261-8414), spray gun, paint: syphon feed, 7-CFM (Black Mfg Co, mod No. B-8900-AR-1, B1900) (4940-261-8415), Apr 55

Ord 7-8 SNL J-520 Jack, hand, hyd: 10-t cap (Walker mod 780) (41-J-154), Mar 55

Ord 7-8 SNL J-708 Drill, pneu, port, revers, w/feed screw and grip hdl, No. 3 Morse taper spindle, 1-1/4-in cap, 3/8-in inlet (Thor Power Tool, size no. 363-RY-3 mod 5128 and size no. 363-RZ-3 mod 5130) (40-D-453), Mar 55

Ord 7-8 SNL J-762 Lathe, engine, bench type, 3/4-hp, 110-v, 60-c, sgle-ph, 12-in swing, 5-ft bed, quick change gear box, back geared, (Sheldon Machine mods "H" and "R") (40-L-26), Apr 55

Ord 7-8 SNL J-765 Shears, metal cutting, elec: 115-v univ curr, 18-gage cap (Skil mod 17) (40-S-1725), Mar 55

Ord 7-8 SNL J-766 Lathe, engine, tool room type, 5-hp, 220-v, 60-c, 3-ph, 12-in swing, 6-1/2 ft bed, 30 in betw cent quick change gearbox, back-geared, (Monarch Mach Tool mod series 60) (40-L-26-25), Mar 55

Ord 7-8 SNL J-767 Drill mach, upright: floor type, 3/4-hp, 110-v, 60-c, sgle-ph, 7/8-in max drill cap, 16-in swing (Kearney-Trecker mod D1100) (40-P-1177), Apr 55

Ord 7-8 SNL J-777 Drill, pneu, port, non-rev, 1/4-in cap, 2,000-RPM, w/360-degree angle head (Chicago Pneu Tool mod 301-2500) (40-D-443-100), Mar 55

Ord 3 SNL R-1 Ammo, fixed and semifixed including subcaliber, for pack, light and med field, aircraft, tank, and AT artillery, complete round data, Apr 55

Ord 3 SNL Y-1 Vol 2 Maj items—Radio contr aerial target materiel, Mar 55

Ord 7-8 SNL J-521 Grinder, pneu, port, stght hdl, size 1-1/2-x1/2-in whl (vitrif): size 2-x 1/2-in whl (organic) (Thor Power Tool, Thor 10-18 mod 4812) (40-G-169-370), Mar 55

Ord 7-8 SNL J-524 Forge, coal burn: steel hearth, 30-in lg, 24-in wd, 3-in deep, w/o coal box, w/water tank, windshield type hood, hand operated blower (Buffalo Forge mod 535) (3360-223-8942), Mar 55

Ord 7-8 SNL J-525 Jack, hand, hyd: Roller car type, 10-t cap (Weaver mod WA-75) (41-J-154), Mar 55

Ord 7-8 SNL J-526 Grinder, pneu, ptbl, pistol grip hdl, w/one 6x1-in whl (vitrif), and one 8x1 in wheel (organic) (Rotor Tool mod M-866 Type D-325) (40-G-169), May 55

TECHNICAL MANUALS

TM 9-1910 (TO 11A-1-34) Mil explosives, Apr 55

TM 9-2024 (TO 11W1-12-2-21) 20-mm auto gun M24A1, Mar 55

TM 9-3036 4.5-inch multi rckt launcher M21, Apr 55

TM 9-3058 Cal. .50 spotting rifle M8; 106-mm Rifle M40; and 106-mm rifle Mount M79, Apr 55

TM 9-6029 'Scope M93 (T153), Apr 55

TM 9-6081-10 FCS T38—diagrams and references, Dec 54

TM 9-6163 Ball drive T24E2, Apr 55

TM 9-7005 SP 155-mm how M44 (T194): Final drive assy, univ joint assy, turret bearing assy, recoil spade mech, shifting contr assy, rammer hydraulic sys, Mar 55

TM 9-7009-1 12-cyl air-cooled engine (Continental, mods AV-1790-5A, AV-1790-5B, AV-1790-7), Mar 55

TM 9-7013-2 Traversing, elevating sys for 90-mm gun tank M48 (T48), Apr 55

TM 9-7017-6 Trav mech; elev mech; cmdr's control; elev control box; trav control box; firing control box; for 76-mm gun tank, M41A1 (T41E2), Feb 55

TM 9-8226 1-1/2-ton, 2-whl cargo trailer M104, M104A1, M105A1; 1-1/2-ton, 2-whl chassis trailer M103A1; 1-1/2-ton, 2-whl water tank trailer M106, M106A1, M107A1, Apr 55

TM 9-8826 5-ton 4x2 tract trk, 5-ton 4x2 trk chassis w/cab, and 5-ton 4x2 van trk (Fed mod 45M2), Dec 54

TM 9-9006-1 90-degree angle 1/4-in cap univer current 110-v port elect drill (Chicago pneu tool mod 800-DA-1875) (40-D-330), Mar 55

TM 9-9036-4 Sgle-ph 60 cy 110-v 1/4 HP bench grind w/twist drill holder for wire gage size 1 50 41, ltr size A to Z, and 3/32 to 3/4 inch fract size drills (Black Diamond Saw, Machine Works mod 3C) (40-G-148-50), Mar 55

TM 9-9036-6 Whl size 10x1 DC 110-v 1 hp util grind, mach (Brown-Brockmeyer mod MSG93-ES5133) (40-C-144-15), Apr 55

TM 9-9804-2 Sgl-phase 60-cy 110/120-v 5-HP start motor and elect units gen-elect test and maint tbl (Heyer Products Co., Inc., mod 550) (4910-356-7617), Apr 55

TM 9-9814-1 0.720- to 2.000-in diam cap 1/3-HP AC 115-v 60-cy sgle-phase bench-type horiz honing mach w/mandrels, stones, Apr 55

TM 9-9834-1 300-0-1000, 150-0-500, 30-0-100, 15-0-50, 3-0-10 amp range 0-100, 0-50, 0-10, 0-1 volt range low volt circuit Tester (Joseph Weidenhoff mod 1120) (17-T-5575-50), Apr 55

TM 9-9836-1 1/4- to 5/8-in cap wet-type univ-curr 110-v valve face grind mach (US Elect Tool mod VR-7) (4910-261-7848) (Form valve refacer 40-V-505), Mar 55

ORDNANCE MWO's

G184-W4 38-ton high-speed tract M6: provide means of draining water from box frame F Apr 55

G244-W35 Med tanks M46, M46A1: replace of servo lever shafts in cross-drive transmissions CD-850-4, CD-850-4A F Mar 55

G244-W37 Med tank M46: Fabri of drilling template and drilling of AV-1790-5A engi crankcase D Apr 55

G251-W8 76-mm gun tank M41, M41A1: install of deflect screen for ejected 76-mm cart cases F Apr 55

G260-W18 Tracked arm inf veh M75 (T18E1): mod of fixed fire exting remote control line to prevent accident dich F Apr 55

G268-W3 4x4 hvy-gun-lift ft trks M249, M250: relocat air cleaner intake port F May 55

G268-W4 4x4 hvy gun-lift f trk M249, M250: 4x4 drill drain holes in cab doors O Apr 55

G268-W5 4x4 hvy gun-liftg rear trk M250: provide extens for lub fittings on 5th wh O Apr 55

G508-W17 2-1/2-ton 6x6 cargo trks (GMC mod AFKWX 353, CCKW 352, CCKW 353, CCKWX 353 w/split-type axle): alt of transfer front axle output shaft shifter (declutch) lever Mar 55

G742-W20 2-1/2-ton 6x6 trk M44, M45, M46, M34, M35, M108, M47, M59, M49, M109, M50, M48, M275, install lub fittings in hand brake shoe Apr 55

G744-W8 5-ton 6x6 truck M40, M61, M63, M139, M41, M54, M55, M64, M51, trk M62 M246, M52: provid cir for blackout clear lights on towed veh Apr 55

G744-W17 5-ton 6x6 trk M39, M40, M61, M63, M139, M41, M54, M55; trk M64; M51; M62; M246; M52: install lub fitting in handbrake shoe Mar 55

G744-W18 5-ton 6x6 med wreck trck M62: provide means of lub boom swing motor w/o removing swing motor cover Apr 55

G744-W19 5-ton 6x6 trk M39, M40, M61, M63, M139, M41, M54, M55, M64, M51, M62, M246, M52, Relocati of shifter fork set screw hole in transfer input shifter shaft Mar 55

G749-W18 2-1/2-ton 6x6 trks M135, M211, M215, M217, M220, M221, M222, Add lub for by-D trans reduct unit output shaft by install grooved bearing Apr 55

G749-W22 2-1/2-ton 6x6 trks M135, M211, M215, M217, M220, M221, M222: install front suspen stab br F Apr 55

G749-W23 2-1/2-ton 6x6 trk M135, M211, M215, M217, M220, M221, M222: install drain plug in fly wh housing cover F Mar 55

G749-W24 2-1/2-ton 6x6 cargo trk M135: Re-routing starter cables F Mar 55

G749-W25 2-1/2-ton 6x6 trks M135, M211, M215, M217, M220, M221, a M222: secure studs in drive shaft side of axlw housing F Apr 55

G754-W5 1-1/2-ton 2-whl trail M104, M106: removal o emerg brake sys F May 55

G758-W2 1/4-ton 4x4 util trk M38A1: install new battery box tray hanger brackets F Mar 55

G758-W4 1/4-ton 4x4 util trk M38A1: provide prop shaft univ jnt assys w/lub fittings O May 55

G770-W1 5-ton 4x2 trk tract (White mod WC 22 PLT): install new eng mnt bolts F Apr 55

G770-W2 5-ton 4x2 trk trac (White mod WC 22 PLT): fab and install insul plate to prev burn of insul on eng cowl F Apr 55

J6-W2 Single end box wrench 7950489: install of steel blocks F Mar 55

J6-W3 Spec tools for auto mat: adapt span wrench to rec tor wrench F May 55

Y5-W1 Lncher-loader, GM, XM 26: aply field changes to correct defic and to insure op perform of the lncher-loaders O Mar 55

Y15-W1 Organ maint and assy spec tool set for Nike GM XSAM-A-7: Correc defics and insuring opt perform O Mar 55

TECHNICAL BULLETINS

TB Ord 595 Track-laying vehs: Instruct for use of track link end-connector puller O, Mar 55

TB Ord 596 AV-1790 series Continental engines: Maint of throttle control rods F, Apr 55

TB Ord 597-1 (TO 35D4-4-1-2) Rebuild standards for plain trolley spur gear chain hoist (41-H-2183) D, Apr 55

TB Ord 597-2 Rebuild standards for coal burning forge w/30-in long, 24-in wide, 3-in deep hearth, D, Mar 55

TB Ord 597-3 Rebuild standards for 7 1/2-hp, 220/440-v, 60-cy, 3-ph, precision type, tire tread buffer (40-B-938), D, Mar 55

TB Ord 597-4 (TO 34Y2-1-2) Rebuild standards for 36-in long, 18-in wide, 20-in deep, 12-gal cap, 110-v, 60-cy, single phase sparkless motor drive, solvent-type, mechanical parts cleaner (40-C-1009-5), D, Apr 55

TB Ord 597-5 Rebuild standards for 3-ph 60-cy 220/440-v heavy-endless rubber-conveyor-tumbler abrasive-blasting cleaner w/dust collector (40-C-1007-600) D, Apr 55

TB Ord 597-6 (TO 36-1-24) Twin post pneu motor veh lift (4910-221-1826) rebuild standards D, Apr 55

TB Ord 598 Interim whled vehs op of power plant heaters during moderate ambient temps, O, Apr 55

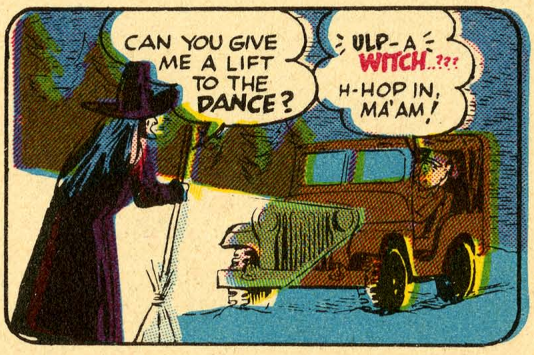
TB Ord 599 AOS-895-3, AO-895-4, AV-17905B and AV-1790-7 Continental engines: maint of oil press sending units and switches O, Apr 55

TB Ord 600 Additional disting marking of wpns and ammo made under the offshore procurement program in Europe, Apr 55

NOTE—On TB's, SB's and MWO's:
O—Organizational Maintenance
F—Field Maintenance
D—Depot Maintenance

JOE'S DOPE
WINTER'S NIGH
A Spectacular
STARRING OUR BOY JOE
And
PRESENTING THAT LOVELY NEW STARLET
WITCH WINTER

WHAT'S THAT??--- A WOMAN?
ONE NIGHT . . JOE DRIVING TO A DANCE MET A . . . .


CAN YOU GIVE ME A LIFT TO THE DANCE?
ULP-A WITCH...???
H-HOP IN, MA'AM!

I'M NOT REALLY A WITCH! A KISS'LL BREAK THE SPELL!
S-SORRY....I'M IN A HURRY....

THE MAN WHO KISSES ME WILL CHANGE ME INTO A BEAUTIFUL PRINCESS---HEH HEH!
N-NO THANKS!
USO DA TO-NITE

BEFORE WE CONTINUE OUR SPECTACULAR . . LET'S HAVE A MESSAGE FROM OUR SPONSOR . . . THE U. S. ARMY . . .
HI.. I'M CONNIE RODD... AN EXPERT IN WINTERIZATION!

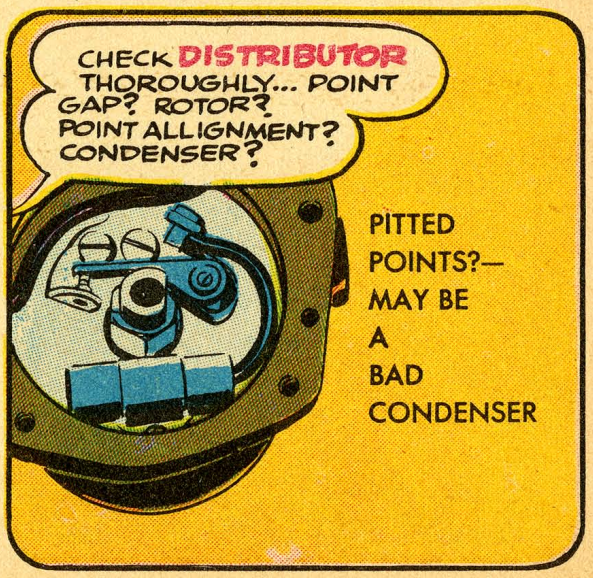
ARE YOU TROUBLED WITH DIRT AND THIN SUMMER OIL? WINTERIZE--- OUR WAY!

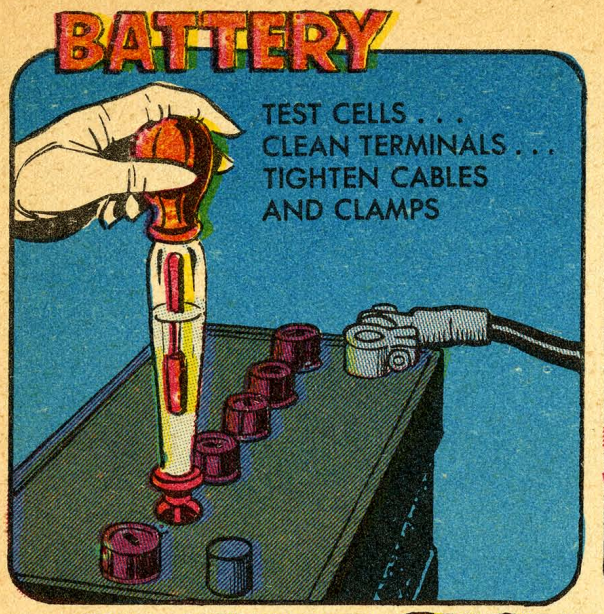
LUBRICATION

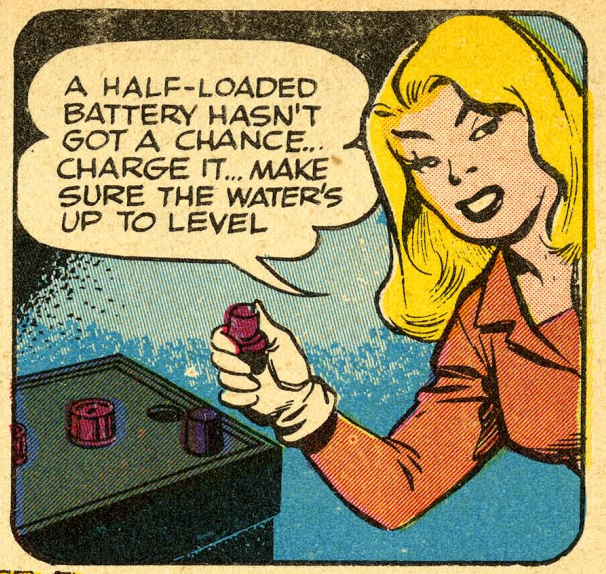
THE TEMPERATURE HELPS CLUE YOU ON LUBES.

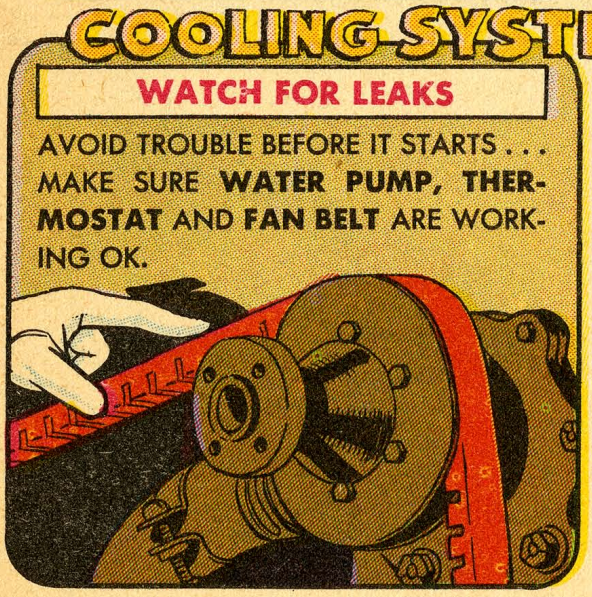
FOR AREAS LIKE:	TEMPERATURES	LUBES (FOR EXPECTED TEMPERATURE)	REMARKS
THE FRIGID NORTH — ALASKA, CANADA, ETC.	EXTREME COLD (—10° TO —65° F)	OES; GOS; HBA; OHA; GAA; PL (SPECIAL)	IN THIS CLIME KEEP TM 9-2855 HANDY
THE SHIVERIN' NORTH — MINN. MON. ETC.	COLD (—0° TO —20° F)	OES; GOS; HBA; OHA; GAA; PL (SPECIAL)	THESE USE THE SAME LUBES AS THE ARCTIC
THE MIDDLE BELT — KANSAS, OHIO, MARYLAD, ETC.	NORMAL WINTER TEMP (—10° TO +40° F)	OE10; GO75; HB; OHA; GAA; PL (SPECIAL)	CHANGE AHEAD OF COLD WEATHER
THE SUNNY SOUTH — SO. CALIF. FLA; LA., ETC.	HIGH WINTER TEMP (+30° TO +70° F)	OE30, OR 50; GO90; HB; OHA; GAA; PL (MEDIUM)	YOU PROBABLY WON'T NEED COLD LUBES HERE

IGNITION

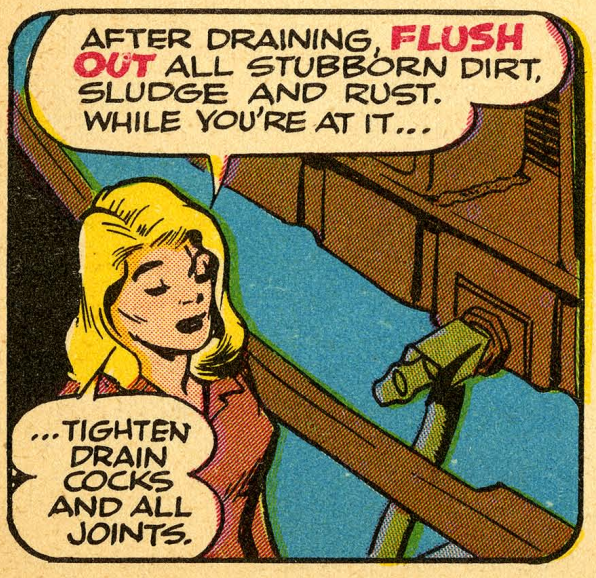



BATTERY
TEST CELLS . . .
CLEAN TERMINALS . . .
TIGHTEN CABLES
AND CLAMPS


A HALF-LOADED BATTERY HASN'T GOT A CHANCE... CHARGE IT... MAKE SURE THE WATER'S UP TO LEVEL


COOLING SYSTEM
WATCH FOR LEAKS
AVOID TROUBLE BEFORE IT STARTS . . . MAKE SURE WATER PUMP, THERMOSTAT AND FAN BELT ARE WORKING OK.

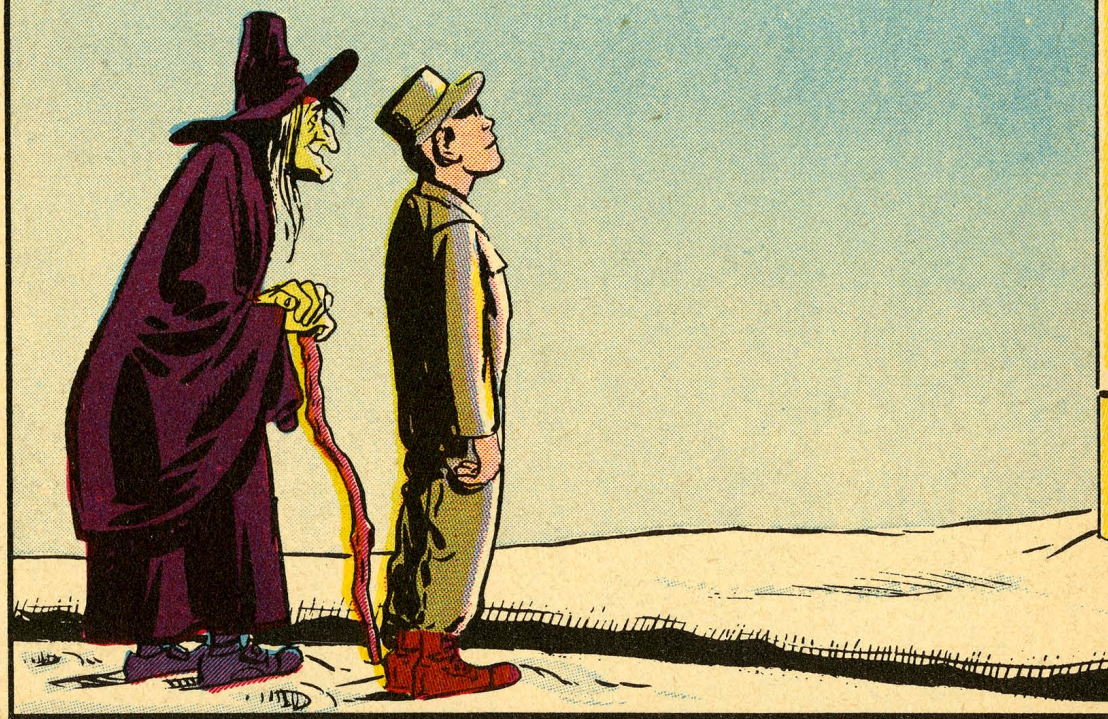
LOOK FOR LOOSE BOLTS AND CLAMPS, LOOSE SOLDERED JOINTS, DIRTY OR CORRODED WATER PASSAGES, WORN HOSES MAKE SURE ALL'S TIGHT AND CLEAN.


AFTER DRAINING, FLUSH OUT ALL STUBBORN DIRT, SLUDGE AND RUST. WHILE YOU'RE AT IT...
...TIGHTEN DRAIN COCKS AND ALL JOINTS.

THEN ADD THE RIGHT MIXTURE OF WATER AND ANTI-FREEZE.
COMPOUND
ANTI FREEZE
ETHYLENE
GLYCOL
TYPE
THIS PIN-UP SHOWS HOW-MUCH

Joe's Dope Sheet

Winter, says our expert the witch,
Should catch you after you switch.
Winterize now –
Your TM tells **HOW** –
A whole suit is oft saved by a stitch.



AN

TEMPERATURE
+20° F
+10° F
0° F
–10° F
–20° F
–30° F
–40° F
–50° F
–60° F

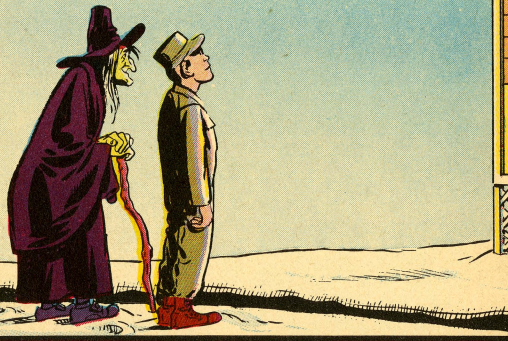
ADD FOR
If the te
cooling
for mo

WE HAVE THE WORLD'S BEST EQ

COPYRIGHT 195

JOE'S Dope Sheet

Winter, says our expert the witch,
Should catch you after you switch.
Winterize now –
Your TM tells **HOW** –
A whole suit is oft saved by a stitch.



ANTI-FREEZE FOR WINTER-TIME PROTECTION

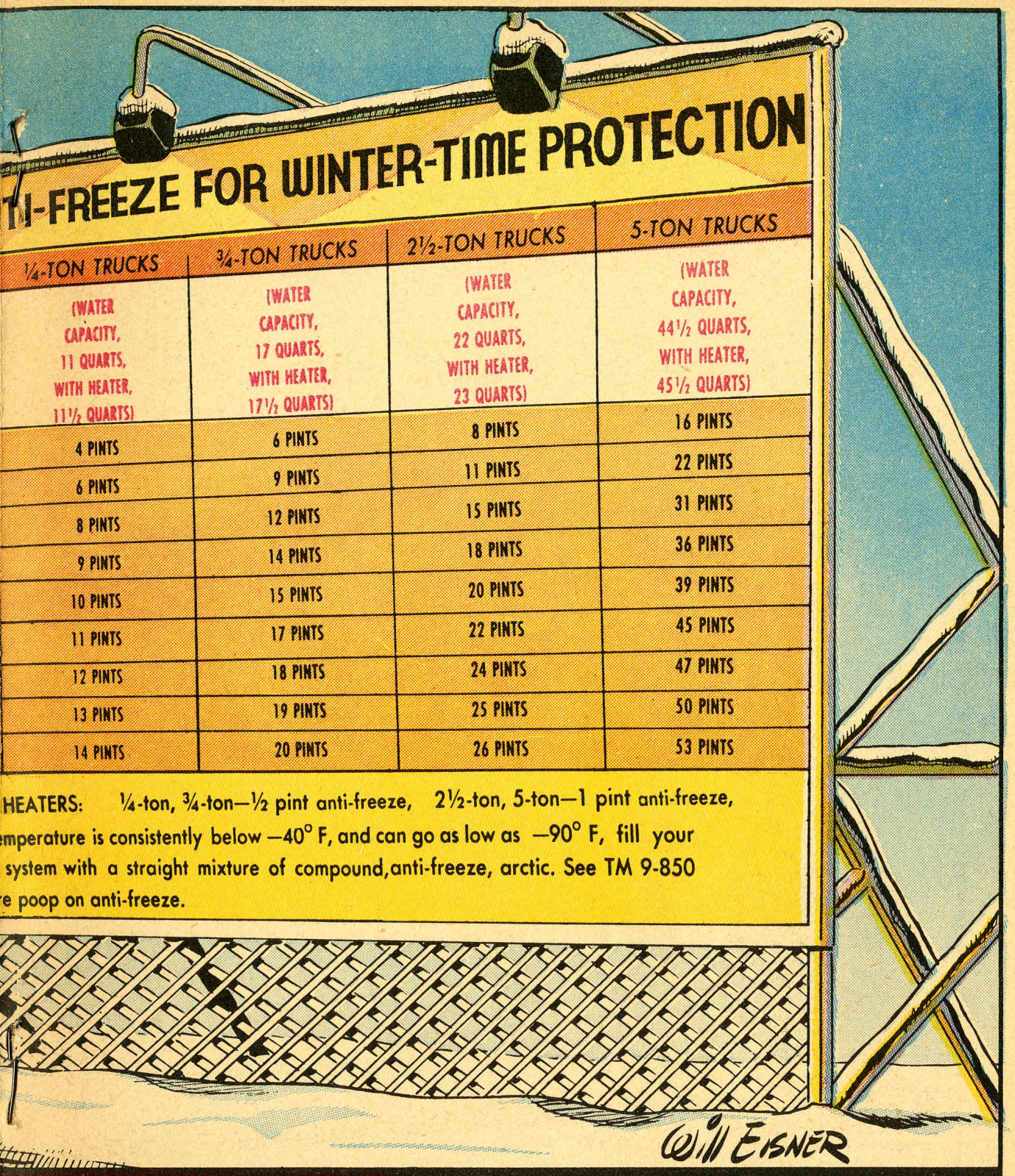
TEMPERATURE	¼-TON TRUCKS (WATER CAPACITY, 11 QUARTS, WITH HEATER, 11½ QUARTS)	¾-TON TRUCKS (WATER CAPACITY, 17 QUARTS, WITH HEATER, 17½ QUARTS)	2½-TON TRUCKS (WATER CAPACITY, 22 QUARTS, WITH HEATER, 23 QUARTS)	5-TON TRUCKS (WATER CAPACITY, 44½ QUARTS, WITH HEATER, 45½ QUARTS)
+20° F	4 PINTS	6 PINTS	8 PINTS	16 PINTS
+10° F	6 PINTS	9 PINTS	11 PINTS	22 PINTS
0° F	8 PINTS	12 PINTS	15 PINTS	31 PINTS
–10° F	9 PINTS	14 PINTS	18 PINTS	36 PINTS
–20° F	10 PINTS	15 PINTS	20 PINTS	39 PINTS
–30° F	11 PINTS	17 PINTS	22 PINTS	45 PINTS
–40° F	12 PINTS	18 PINTS	24 PINTS	47 PINTS
–50° F	13 PINTS	19 PINTS	25 PINTS	50 PINTS
–60° F	14 PINTS	20 PINTS	26 PINTS	53 PINTS

ADD FOR HEATERS: ¼-ton, ¾-ton–½ pint anti-freeze, 2½-ton, 5-ton–1 pint anti-freeze,
If the temperature is consistently below –40° F, and can go as low as –90° F, fill your cooling system with a straight mixture of compound, anti-freeze, arctic. See TM 9-850 for more poop on anti-freeze.

WILL EISNER

WE HAVE THE WORLD'S BEST EQUIPMENT... *Take care of it*

COPYRIGHT 1955 BY WILL EISNER



TI-FREEZE FOR WINTER-TIME PROTECTION

¼-TON TRUCKS	¾-TON TRUCKS	2½-TON TRUCKS	5-TON TRUCKS
(WATER CAPACITY, 11 QUARTS, WITH HEATER, 11½ QUARTS)	(WATER CAPACITY, 17 QUARTS, WITH HEATER, 17½ QUARTS)	(WATER CAPACITY, 22 QUARTS, WITH HEATER, 23 QUARTS)	(WATER CAPACITY, 44½ QUARTS, WITH HEATER, 45½ QUARTS)
4 PINTS	6 PINTS	8 PINTS	16 PINTS
6 PINTS	9 PINTS	11 PINTS	22 PINTS
8 PINTS	12 PINTS	15 PINTS	31 PINTS
9 PINTS	14 PINTS	18 PINTS	36 PINTS
10 PINTS	15 PINTS	20 PINTS	39 PINTS
11 PINTS	17 PINTS	22 PINTS	45 PINTS
12 PINTS	18 PINTS	24 PINTS	47 PINTS
13 PINTS	19 PINTS	25 PINTS	50 PINTS
14 PINTS	20 PINTS	26 PINTS	53 PINTS

HEATERS: ¼-ton, ¾-ton—½ pint anti-freeze, 2½-ton, 5-ton—1 pint anti-freeze,
emperature is consistently below —40° F, and can go as low as —90° F, fill your
system with a straight mixture of compound, anti-freeze, arctic. See TM 9-850
e poop on anti-freeze.

Will Eisner

UIPMENT... Take care of it

55 BY WILL EISNER

AND NOW, BACK TO OUR STORY . . . JOE IS AT THE DANCE . . . WITH A WITCH

. . . AND NOW A WORD FROM OUR LOVELY WINTERIZER AGAIN . . . . .

OVERCOOLING

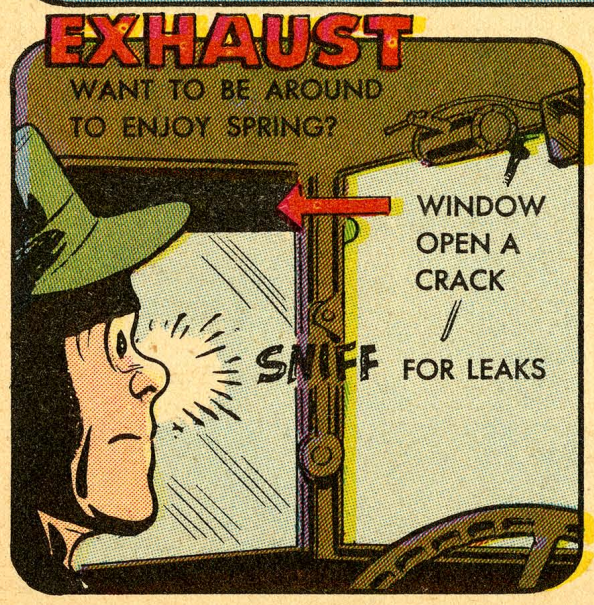
(when engine runs below normal temperature) A constant winter threat . . . If you've got a dirty or broken thermostat cold water in radiator'll only get colder. This'll cause condensation and water in the crankcase . . . then you've got troubles. Water & Oil whipped together—means SLUDGE:

SLUDGE—clogs filters, screens, oil lines
—hardens and sticks on valve stems and piston rings.

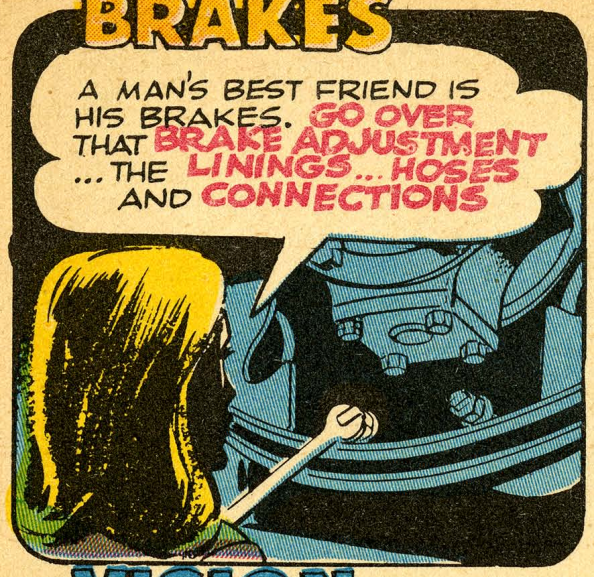
When engine's stopped, condensation freezes and'll knock out the oil pump. Ice crystals'll form and block oil flow—shot bearings. Carbon monoxide plus water forms ***carbonic acid****—which'll etch heck out of engines.*

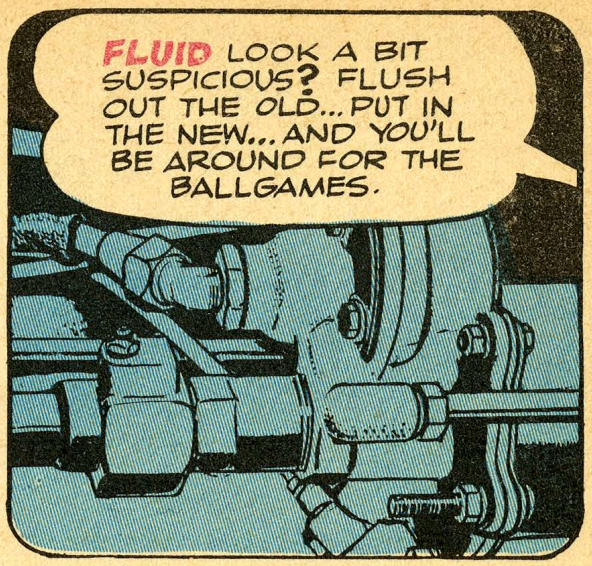
TO AVOID ALL THIS . . . KEEP WATER PUMP, THERMOSTAT AND FAN BELT IN TOP SHAPE.

EXHAUST

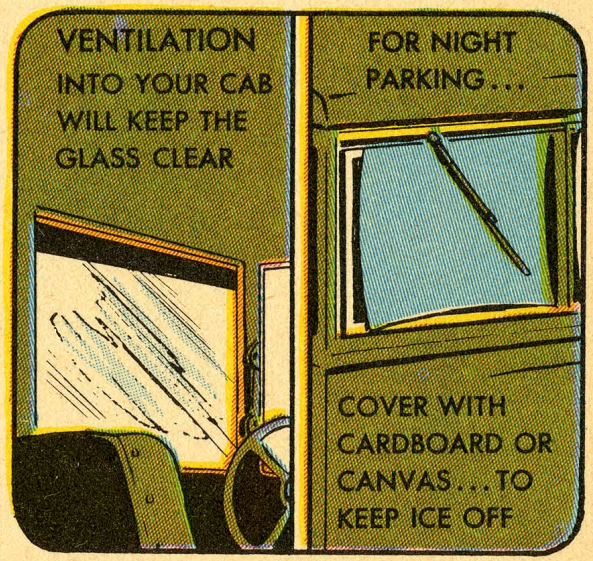


BRAKES



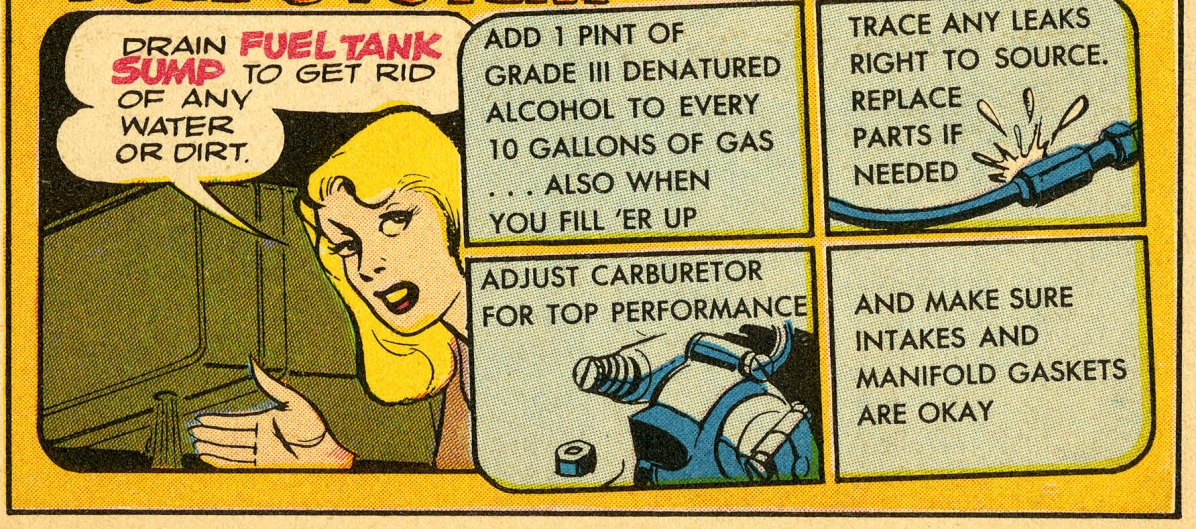


VISION

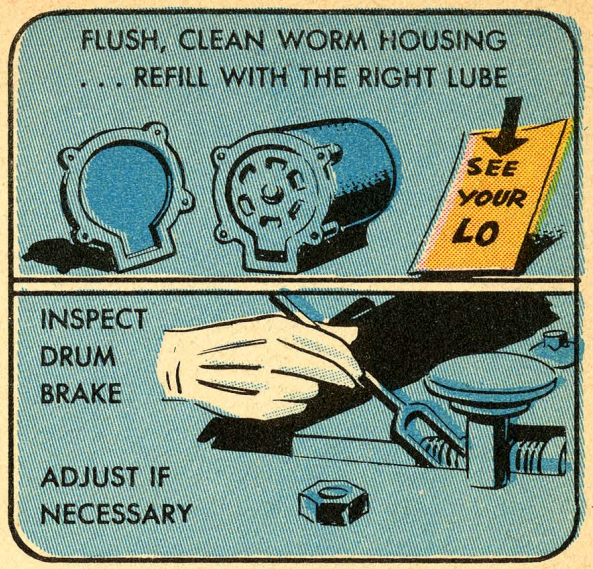


FUEL SYSTEM

IN GETTING READY FOR EXTREME COLD..

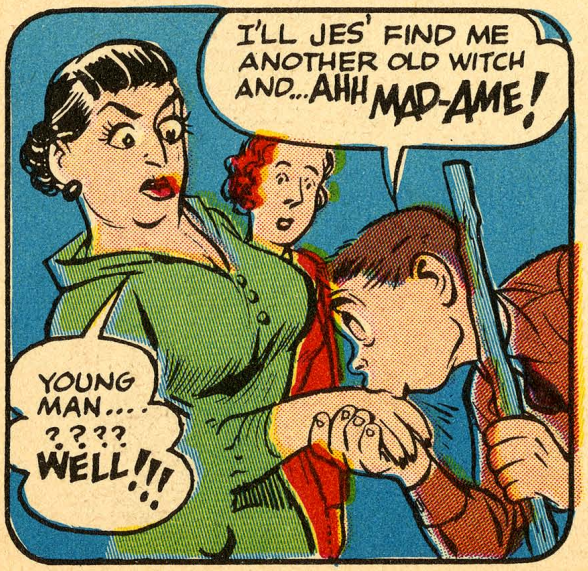


WINCHES
CLEAN OUT MUD DUST AND RUST!


FLUSH, CLEAN WORM HOUSING . . . REFILL WITH THE RIGHT LUBE
SEE YOUR LO
INSPECT DRUM BRAKE
ADJUST IF NECESSARY

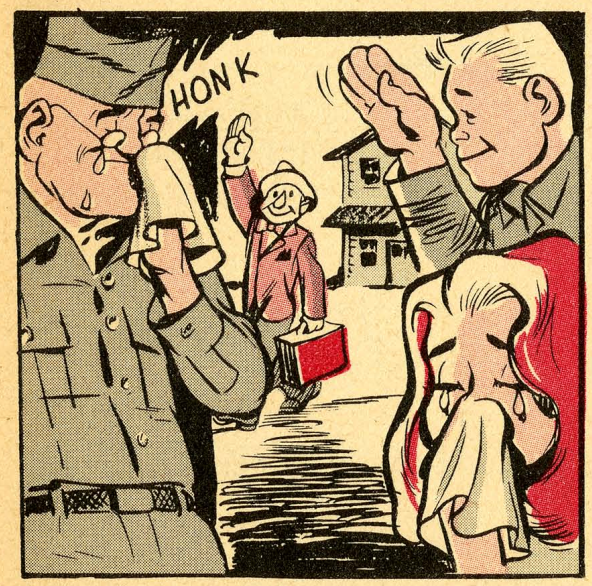
KEEP THESE HANDY, FELLAS, AND SPARE YOURSELF THOSE WINTER BLUES.
LO
TM
SNL
SERIES 6-249

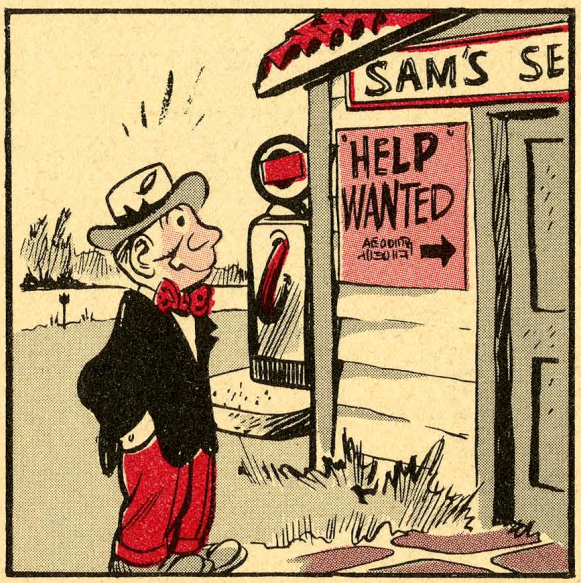
AND NOW BACK TO THE LAST ACT
HOLY COW...THIS BROOMSTICK MUST BE THE GIMMICK THAT SWITCHED THAT WITCH INTO A BEAUTIFUL BABE... WELL, IT'S WORTH A TRY!

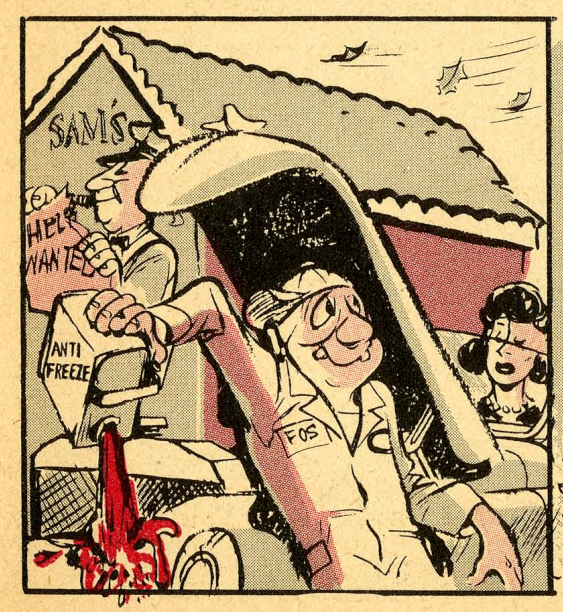

I'LL JES' FIND ME ANOTHER OLD WITCH AND...AHH MAD-AME!
YOUNG MAN.... ???? WELL!!!

The End
TM 9-2855
FOR REAL FREEZE UPS

CAMP NEWS
FOSGNOFF LEAVING
PS HELPER RETURNS TO CIVILIAN ACTIVITIES
PREVENTIVE MAINTENANCE PAYS DIVIDENDS
P.S. EDITO


HONK


SAM'S SE
HELP WANTED


SAM'S
HELP WANTED
ANTI FREEZE
FOS

LATER

PREVENTIVE MAINTENANCE PAYS DIVIDENDS

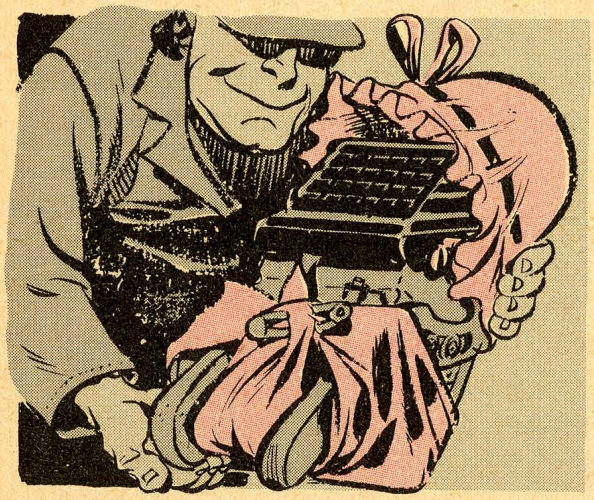
INFRA-RED STOWAGE

Dear Half-Mast,

The M47 tanks assigned to our unit have a .50-caliber ammunition box in the driver's compartment that's supposed to be used for stowing the M19 infra-red periscope.

In its present form the box is completely inadequate for this job. What do you think of changing it to include a cover and padded brackets to hold and protect the scope?

Capt R. L. A.



Dear Capt R. L. A.,

I think that'd be OK—except for one thing. There's an MWO in the mill that's supposed to take care of the IR stowage situation. It'll fit out the M47 with a box made 'specially for the M19 scope. Should be ready soon.

Meanwhile, you should get by OK with the ammo box. To play safe make sure when the scope is stowed it's wrapped in rags, or some other good padding material. That'll keep it from getting banged up from bounding around in the box.

Half-Mast

TACK BATTERIES

Dear Half-Mast,

I've got my tachometer, 18-T-231, in my second-echelon tool kit, but I can't get the two BA 415 U batteries it calls for. Can you help me?

Sgt J. R. T.

Dear Sgt J. R. T.,

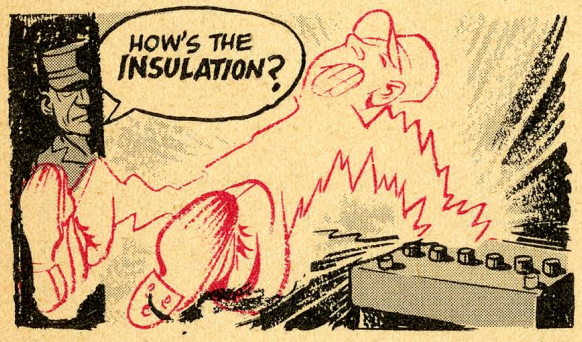
About this tachometer you can't get batteries for: The BA 415/U is a Signal Corps item, and you draw it from the Signal supply unit that supports your outfit. Ask your commo section.

And if they can't get you BA 415/U's ask 'em to try for Signal Corps Stock No. 3A-156-1 or 3A-164-18. These are 180-volt batteries, and one of them will take

the place of the two BA 415/U's. But they are smaller batteries, and won't last as long.

There are a couple of 45-volt batteries you can use if you have to. BA 419/U or BA 56's will fit the battery space in your tach—you use 4 of 'em to get your 180 volts. BA-67's (90v) can be used, but you won't be able to put the battery cover back. Or there is one other battery, Signal Corps No. 3A-164-14, which is a 180-volt battery, but it is so big that you'd have to tape it to the outside of the case.

Mind you, all these substitutions involve taking the plug-ins off the tachometer leads and cobbling up a connection. Be sure you have the permission of your shop officer, and then be real sure you get the polarity right and get your connections well insulated. (That 180 volts will sting if you touch it.)



Substituting batteries in this tach is not something to do if you can help it. But it will work if you can't do anything else. Any source of 180 volts direct current will operate the instrument.

If you make any of these substitutions, be real sure you save the plug-ins to put back on the tachometer when you get the right batteries.

Half-Mast

BRACKETS BUSTIN' LOOSE?

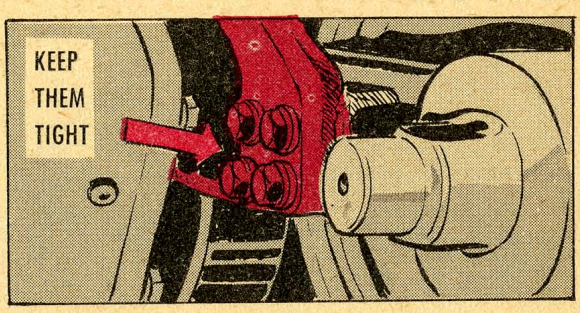
Dear Half-Mast,

We're still having troubles with those M48 tank shock absorber brackets breaking off at the road-wheel-arms.

Tried tack-welding the bolt heads to the brackets, but in rugged going the bolts still sheer—and the bracket busts loose from the arm.

Got any other suggestions?

SFC D. H.



Dear SFC D. H.,

Sure have. Let's lay off the welding and just keep those bolts good and tight and hope they stay put for awhile.

There's a modification program in the mill that'll straighten out the problem shortly by replacing the lower shock-brackets—new brackets with split tapered dowels. Any welding now would just hamper the program.

Likewise with the front road-wheel-arm support-housing.

They've been busting loose from the hull, bending torsion bars and causing some general unpleasantness. You'll be seeing an MWO to take care of this situation by welding the support to the hull. But—don't go jumping the gun before you get the particulars. It's got to be done just right.

Half-Mast

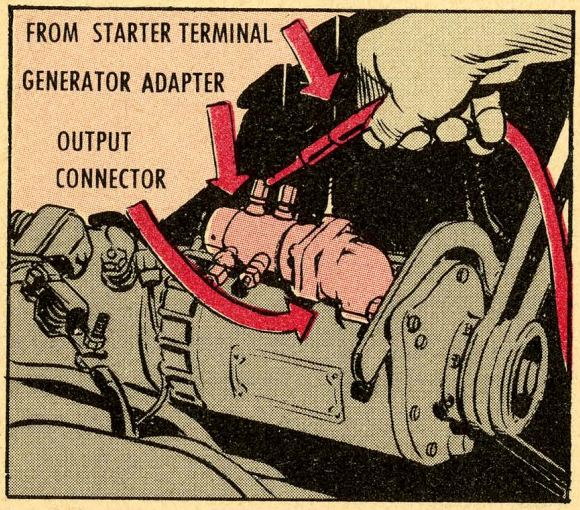
BAD REVERSE

Dear Half-Mast,

We're having a heck of a lot of failures in our generator regulators (Ord Stock No. G742-7351925). The series windings are badly burnt; the current regulator, actuating relay, cutout relay points and left-hand capacitor are all shot.

Got any idea what's causing it?

J. A. D.



Dear J. A. D.,

Sounds like reverse polarity is your trouble. The symptoms you describe fit to a "T" a regulator which has been run with a bassackwards generator.

Your best bet for preventing this is to **always** flash a generator **every** time it has been off the truck, or has been disconnected and tested. It's so simple, and it can save you a regulator.

Install your generator adapter from the adapter kit (Ord Stock No. 17-A-3150) in the generator output connector. Then bring a jumper lead from the vehicle starter terminal and touch it briefly to the field link of the adapter (link closed).

That's all, now remove the adapter, hook up the harness and you're in business.

Half-Mast

KEEP 'EM IN SIGHT (BOXES)

Dear Half-Mast,

Everything and everybody says we gotta keep our gun books with the guns at all times. But nobody or nothing tells us just where. Is there any special place to keep 'em?

Sgt H. E. L.

Dear Sgt H. E. L.,

Where you keep your gun book depends on what kind of gun you've got. Books for field artillery pieces should be kept in the sight boxes on the gun or mount. For tank guns, keep your book in the pamphlet bag stowed behind the tank commander in the turret bustle. Your recoilless rifle books should be kept in the tool chests.

Books for 40-mm or 90-mm M1A1 ack-ack guns should also be kept in the tool chests. The 75-mm Skysweeper uses the manual box on the computer side of the mount. For the 120-mm's, use the tool chest in the pedestal.

When you ship your piece, tape the gun book near the muzzle like your TM's tell you.

A suitable gun book container is currently being developed for installation on all field and AA Artillery weapons.

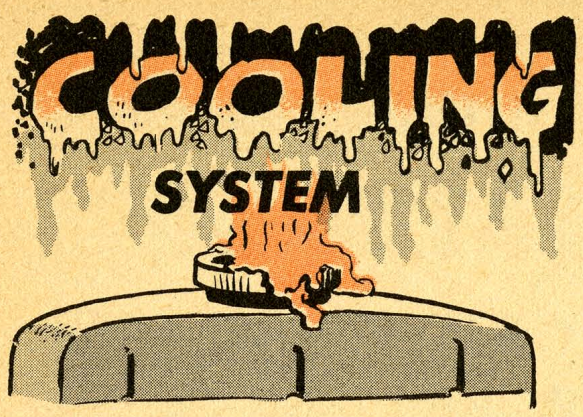
Half-Mast

It'll soon be time for those brass monkeys to run for cover—with Old Man Winter just around the corner.

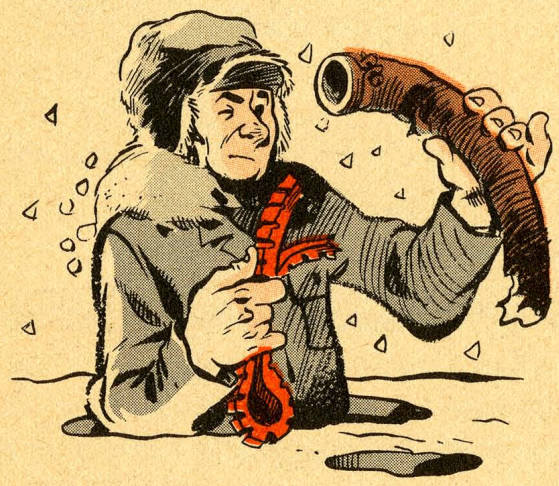
All of us know how important it is to have that Engineer equipment ready for winter's cold blasts.

There are cooling systems to clean and protect with anti-freeze; electrical and fuel systems to look over; batteries to pull, clean and inspect; engine adjustments to take care of; operator's controls to test; lubes to change or freshen up; tracks, wheels and tires to examine; power-control units to look after, and skillions of nuts, bolts, screws, gaskets and plugs to adjust and maybe replace.

Then there's a thorough scrub job for each piece of equipment, spot painting to be done, and preservative compound to be put on.



Before putting the anti-freeze in, it's a must to give the cooling system a thorough checking. Do it while the engine's shut off. Give your machine a good going over for water leaks in the radiator, water hose, water pump, head gaskets, drain plugs and drain cocks. Take a gander at the freeze plugs for signs of rust or corrosion. You'll also want to tighten the cylinder head, adjust the fan belt, make sure the thermostats are working right and clean the radiator fins.



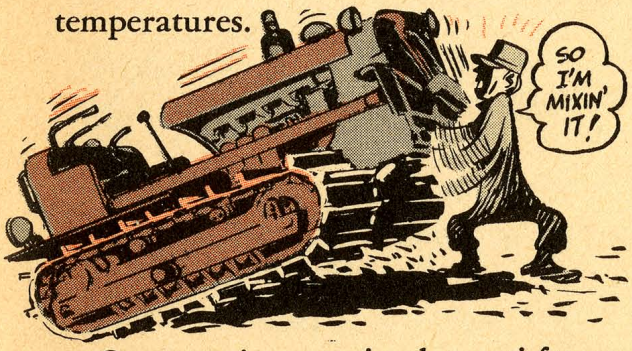
Anything worth doing is worth doing right, so run a re-check on the cooling system—only do it this time with the engine running. Then shut it down and check 'er again. If you find she needs some repairs, make 'em right away. And if higher echelon maintenance is required, don't put that off, either. The sooner you get your equipment off to the shop, the sooner it'll be back to you, snortin' and rarin' to go.

Now you're ready to give the system a good dose and clean 'er out slicker'n a whistle. Be sure and open all the drain points when you drain her.

When you drain the system, you'll more'n likely find a little scale and rust in the coolant. If you find more than a little bit, fill the cooling system with a solution of cooling system compound, ORD STOCK NO. 51-C-1568-500, and run the engine about a half an hour. Flush out the system with just plain water. Flush the system like this and you'll make your cooling system feel like it's had a good strong laxative.

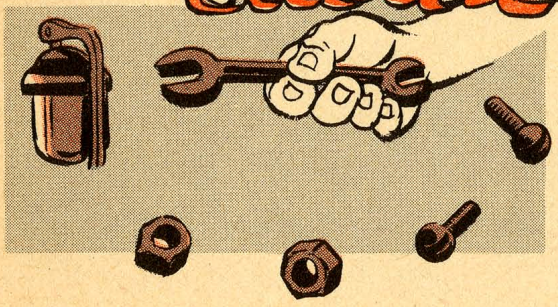
Once you've done this and are satisfied that everything's in good working order, you're ready to put in the anti-freeze. First pour the right amount of anti-freeze into the radiator. Then add water until the system's almost full.

Remember—don't fill it all the way to the top. You've got to leave room for the anti-freeze solution to expand. Also in the event of colder weather than expected, you'll want to allow enough room to add additional anti-freeze. You'll always want to have enough ethylene glycol in your equipment's system to protect it down to a point 10 degrees below the lowest expected temperatures.



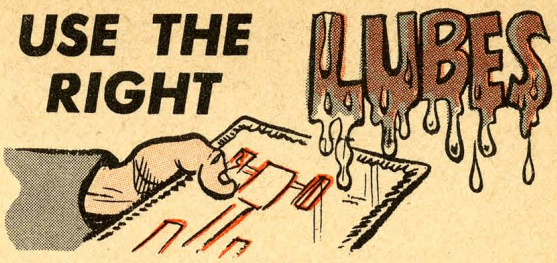
Once you've put in the anti-freeze and added water, start the engine and let 'em get mixed together real good.

ADJUST YOUR ENGINE



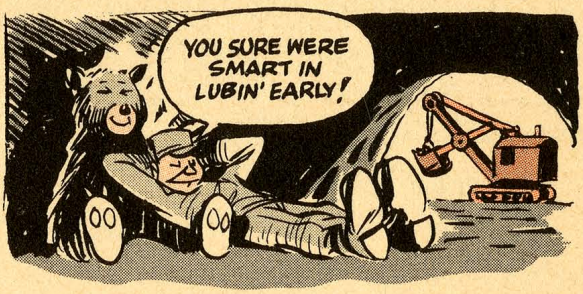
There are a few other things you'll want to check before your equipment is ready for winter. Check the carburetor, the ignition coil and distributor (or magneto), plug gaps and valve timing. Here's a timely tip—A slightly rich mixture and small plug gaps'll give you a faster start, but your vehicle's efficiency will drop off a little.

USE THE RIGHT LUBES



Your LO will tell you the grades of oil and grease to use for winter operation. On chassis lube points, of course, you'll be using GAA all year long . . . if GAA's what you're using. You'll have to look to the LO for the chassis grease you'll need if you're using CG. Follow the LO closely, because they're the best guides you can find to assure yourself of care-free operation.

Take care to flush out the gear cases and pump enough grease into open joints to force out the heavier summer grade lubricants. But—for gosshakes, avoid the pressure-gun treatment to those closed bearing housings fitted with grease retainers. Your best bet is to start using lighter lube in these bearings before winter comes around. Then, when winter does arrive, the heavier lubricant will have already been replaced by the lighter stuff.

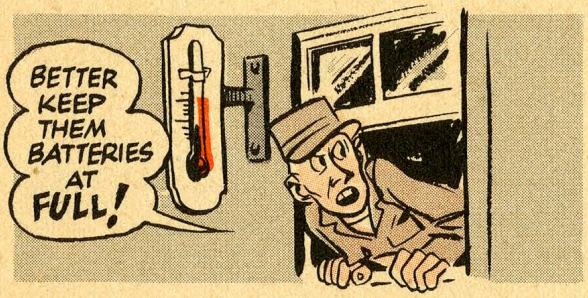


Drain and flush the crankcases before refilling with oil. And if the oil filter cartridge on your machine has seen better days, get rid of it and put in a new one.

BE KIND TO YOUR BATTERY

No matter what your Engineer equipment's going to be doing this winter (working or waiting for warm weather to roll around), if you give its batteries all the care they need right along, there'll be less grinding irritation for all concerned.

To give a battery a proper going over, pull it off the equipment and give it a good cleaning. Check the case carefully for cracks and leaks. Also check the terminals, brackets, cables and connectors.



Batteries should be kept at full charge, especially in cold weather. At half charge (or less) you can't depend on 'em to start anything for you. A half charged battery will also deteriorate fast, and there's always the danger it'll freeze on you. So have your batteries fully charged before you re-install 'em.

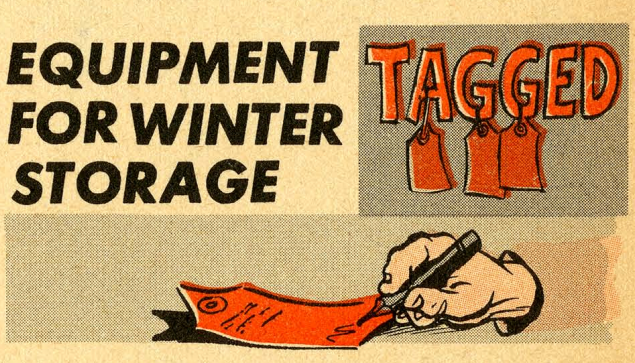
Now, how about your seasonal items? Whether your equipment's been working or stashed in storage during the hot weather'll decide how much work it'll take to get it in top shape.

COMING OUT OF STORAGE

This is easy, 'cause all the winter equipment you stored last spring got inspected, repaired, cleaned and painted before it went into storage . . . and it's been getting its in-storage maintenance right along, Right?

The equipment's storage tag and its maintenance form will tell you on just how job-ready it is.

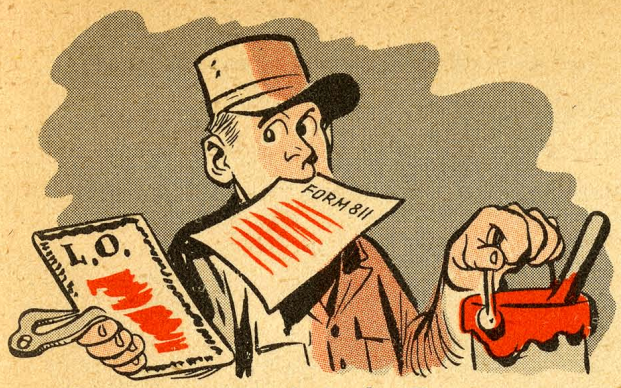
EQUIPMENT FOR WINTER STORAGE TAGGED



SEE SR 750-305-20

Equipment that pulls summer-time duty only needs top-to-bottom care before it's stored for the winter.

Make all adjustments and repairs you're responsible for (by the book) and replace any worn parts. If you come up against any repair or replacement jobs that are out of your echelon, be sure

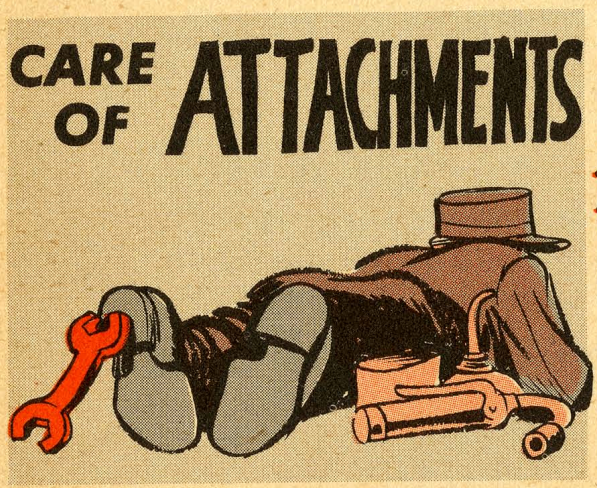


a Form 811, Work Order Request, goes out on 'em before you fix up the equipment for the storage shed.

Scrub it clean. Lube it per the LO. And spot paint it if it's not due a complete paint job.

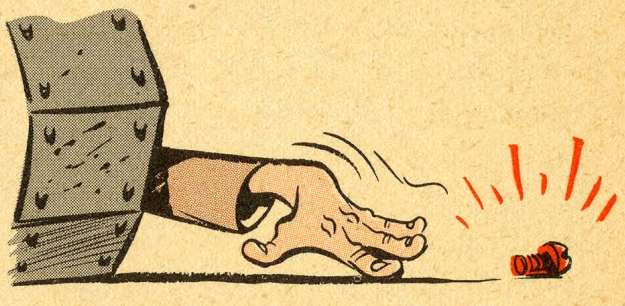
On water-cooled equipment you've got a cooling-system cleaning job to care for and anti-freeze to add.

Replace defective gaskets on compartment covers to keep out moisture and fasten the covers securely.



All attachments on equipment that's sitting the winter out (mowers, cutters, spraying equipment, etc.) also need careful inspection, repair, cleaning, lubing, preservative grease and painting.

And, by all means, remember to keep a close tab on all nuts, bolts, screws, clamps, washers and springs that're removed from the attachments when



equipment's being prepared for storage. They'll be needed in a bad way come spring-time change-over a few months from now.

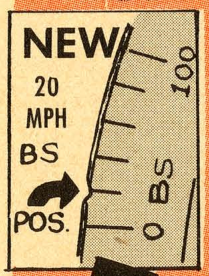
When a piece of equipment's had all the good care it deserves, (and you've put your John Henry on its maintenance form) fill out a storage tag and attach it securely where it can easily be seen. Then you're ready to send the piece off to wait its monthly inspection and subsequent recall to duty.

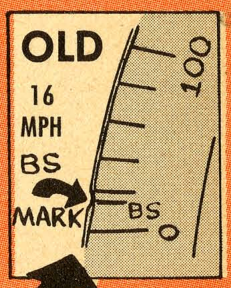
With all that taken care of, you ought to be all set for winter. It means a lot of work, sure, but it's a great feeling to be hot stuff on a cold morning when your engine kicks right over and roars off for a day of trouble-free work.

ARMAMENT

TO TALK BACK TO YOUR M42's GOT TO BE

As you jolly well know, you can't hit the side of a barn with a bass fiddle when your guns aren't boresighted. And if your computing-sight is out of synchro, it'll give you a bum steer, causing your guns to spit where they're not aiming. To be able to dust off anything except maybe a cloud, you gotta be boresighted and synchronized all the way around.



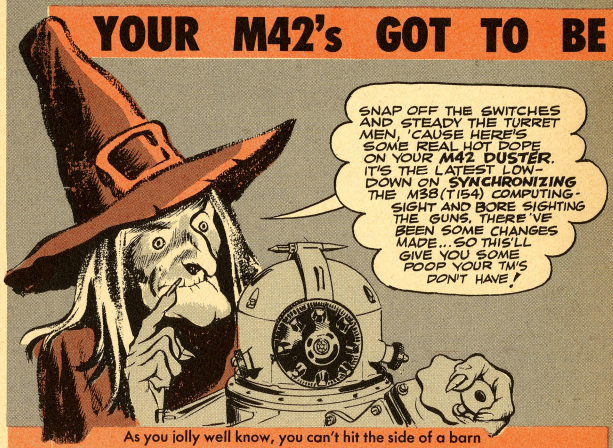


Note: **This procedure applies only to the M42's with the new-type computing sight, which has the BS mark at the 20-MPH detent on the speed knobs. The old type sight has a separate BS mark at the 16-MPH detent on the speed knobs. With the old type sight, use the procedure outlined in TM 9-761A.**

ARMAMENT

TO TALK BACK TO DIRTY BIRDS—

YOUR M42's GOT TO BE SYNCHRONIZED



As you jolly well know, you can't hit the side of a barn with a bass fiddle when your guns aren't boresighted. And if your computing-sight is out of synchro, it'll give you a bum steer, causing your guns to spit where they're not aiming. To be able to dust off anything except maybe a cloud, you gotta be boresighted and synchronized all the way around.

Note: **This procedure applies only to the M42's with the new-type computing sight, which has the BS mark at the 20-MPH detent on the speed knobs. The old type sight has a separate BS mark at the 16-MPH detent on the speed knobs. With the old type sight, use the procedure outlined in TM 9-761A.**

SYNCHRONIZE FIRST

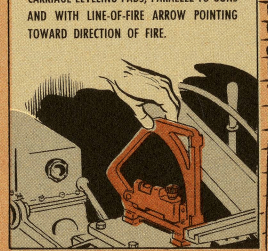
Getting your computing-sight synchronized with the guns is the first step. This has to be done in order to get the computer to do its job through the range of gun elevation.

Here's how to do it:

1 JOCKEY YOUR M42 ONTO FLATTEST GROUND YOU CAN FIND.

2 SET GUNS AT ZERO ELEVATION AND ZERO AZIMUTH.

3 PLACE M1 GUNNER'S QUADRANT ON TOP-CARRIAGE LEVELING-PADS, PARALLEL TO GUNS AND WITH LINE-OF-FIRE ARROW POINTING TOWARD DIRECTION OF FIRE.



DIRTY BIRDS—

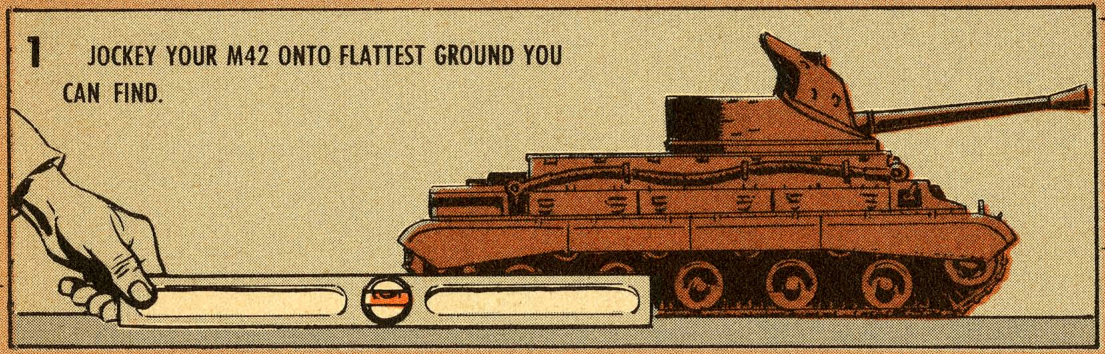
SYNCHRONIZED

SYNCHRONIZE FIRST

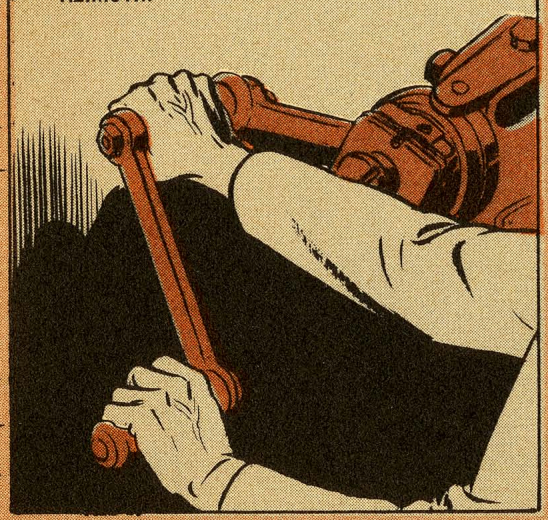
Getting your computing-sight synchronized with the guns is the first step. This has to be done in order to get the computer to do its job through the range of gun elevation.

Here's how to do it:

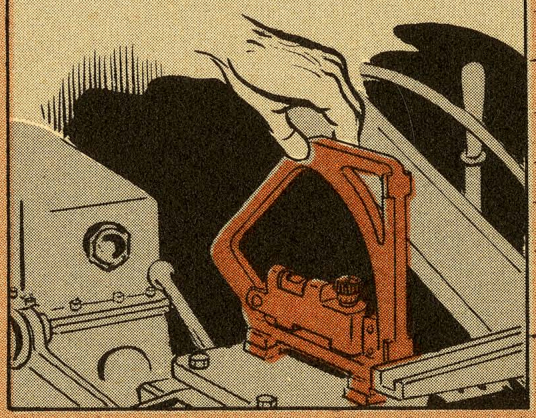
1 JOCKEY YOUR M42 ONTO FLATTEST GROUND YOU CAN FIND.

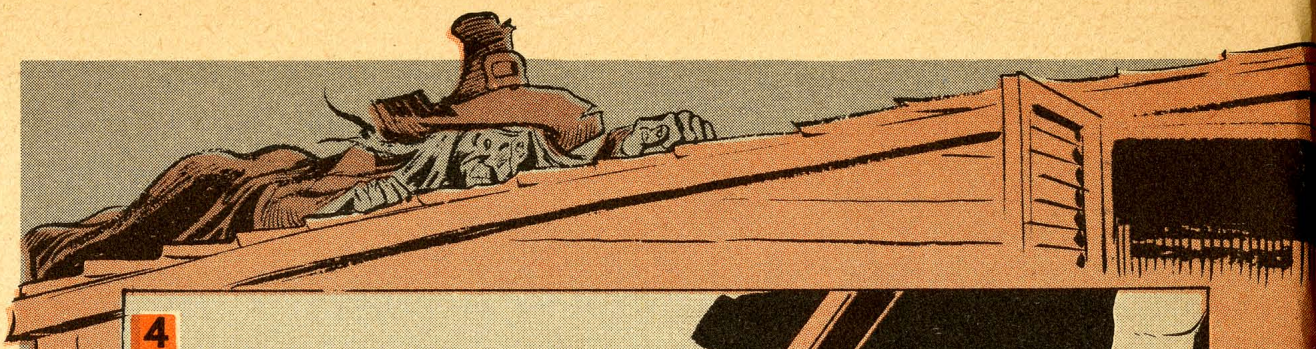


2 SET GUNS AT ZERO ELEVATION AND ZERO AZIMUTH.



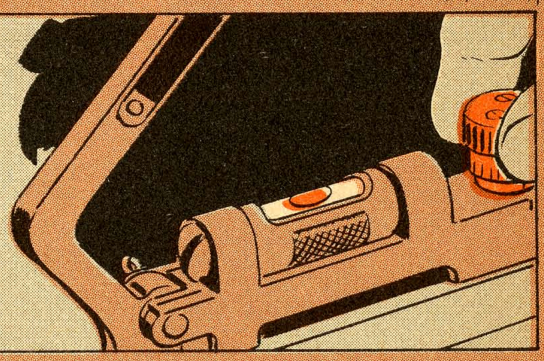
3 PLACE M1 GUNNER'S QUADRANT ON TOP-CARRIAGE LEVELING-PADS, PARALLEL TO GUNS AND WITH LINE-OF-FIRE ARROW POINTING TOWARD DIRECTION OF FIRE.



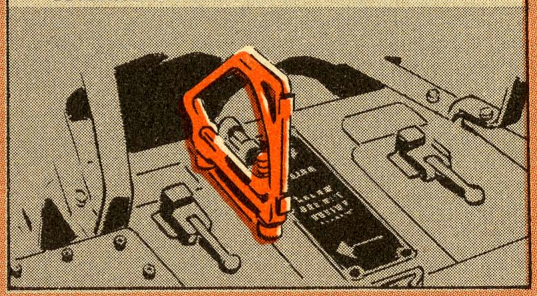


4 ADJUST QUADRANT UNTIL BUBBLE IS CENTERED. THIS IS YOUR BASIC SETTING SO MAKE NOTE OF QUADRANT READING.

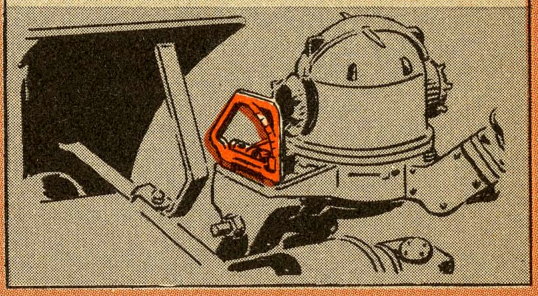
KEEP EXCESS BODIES FROM CRAWLING OVER DUSTER OR GUN MOUNT, OR YOU'LL GET VARIATION IN READINGS.



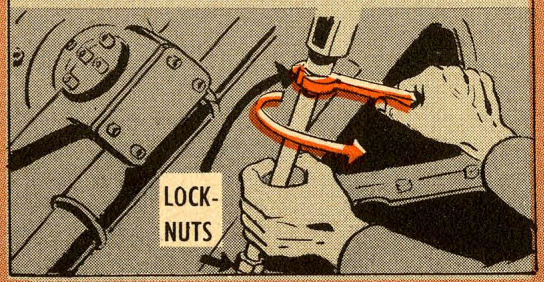
5 NOW PUT QUADRANT ON GUN BREECH-CASING LEVELING-PADS AND ELEVATE OR LOWER GUNS BY MANUAL CONTROL TILL YOU GET SAME READING AS ON TOP-CARRIAGE LEVELING-PADS.



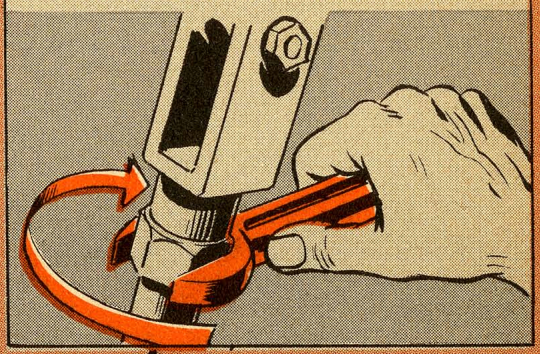
6 PLACE GUNNER'S QUADRANT ON COMPUTER-BODY LEVELING-PADS AND CHECK LEVEL OF COMPUTER-BODY. IF IT'S NOT LEVEL WITHIN TWO MILS OF PREVIOUS QUADRANT READING, YOU'LL HAVE TO DO SOME ADJUSTING.



7 LOOSEN TWO ELEVATION DRAG-LINK LOCK-NUTS AND LEVEL COMPUTER-BODY BY TURNING ELEVATION DRAG-LINK-ROD CLOCKWISE OR COUNTER-CLOCKWISE TO LENGTHEN OR SHORTEN LINKAGE.

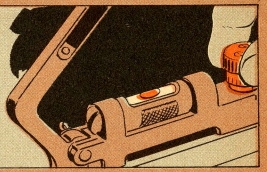


8 WHEN COMPUTER-BODY IS LEVEL TIGHTEN DRAG-LINK LOCK-NUTS, MAKING SURE NOT TO CHANGE SETTING OF YOUR QUADRANT.



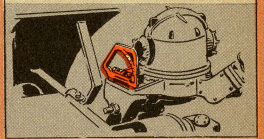
4 ADJUST QUADRANT UNTIL BUBBLE IS CENTERED. THIS IS YOUR BASIC SETTING SO MAKE NOTE OF QUADRANT READING.

KEEP EXCESS BODIES FROM CRAWLING OVER DUSTER OR GUN MOUNT,OR YOU'LL GET VARIATION IN READINGS.

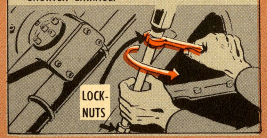


5 NOW PUT QUADRANT ON GUN BREECH-CASING LEVELING-PADS AND ELEVATE OR LOWER GUNS BY MANUAL CONTROL TILL YOU GET SAME READING AS ON TOP-CARRIAGE LEVELING-PADS.

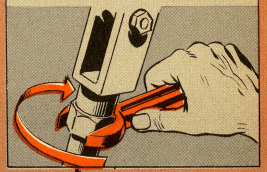
6 PLACE GUNNER'S QUADRANT ON COMPUTER-BODY LEVELING-PADS AND CHECK LEVEL OF COMPUTER-BODY. IF IT'S NOT LEVEL WITHIN TWO MILS OF PREVIOUS QUADRANT READING, YOU'LL HAVE TO DO SOME ADJUSTING.



7 LOOSEN TWO ELEVATION DRAG-LINK LOCK-NUTS AND LEVEL COMPUTER-BODY BY TURNING ELEVATION DRAG-LINK-ROD CLOCKWISE OR COUNTER-CLOCKWISE TO LENGTHEN OR SHORTEN LINKAGE.

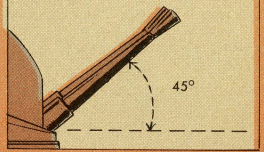


8 WHEN COMPUTER-BODY IS LEVEL TIGHTEN DRAG-LINK LOCK-NUTS, MAKING SURE NOT TO CHANGE SETTING OF YOUR QUADRANT.

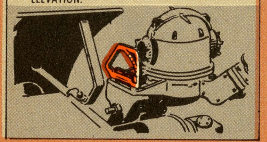


9 YOU SHOULD GET A LEVEL READING WHEN YOU PUT QUADRANT ON EITHER TOP-CARRIAGE LEVELING-PADS, THE BREECH-CASING LEVELING PADS OR THE COMPUTER-BODY LEVELING PADS. A DEFLECTION OF TWO MILS IS OK.

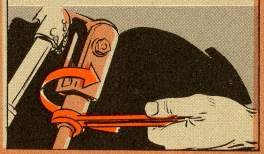
10 NOW, ELEVATE GUNS TO 45° AND CHECK LEVEL OF COMPUTER-BODY. IT MUST REMAIN LEVEL TO WITHIN TWO MILS.



11 RAISE GUNS TO FULL ELEVATION. COMPUTER BODY MUST REMAIN LEVEL WITHIN PLUS OR MINUS TWO MILS UP TO 45° AND PLUS OR MINUS 4 MILS FROM 45° TO FULL ELEVATION.



12 IF IT DOESN'T, RE-ADJUST ELEVATION DRAG-LINK TILL IT DOES.MAKE ADJUSTMENTS WITH GUNS AT ELEVATION WHERE QUADRANT SHOWS GREATEST DEFLECTION.

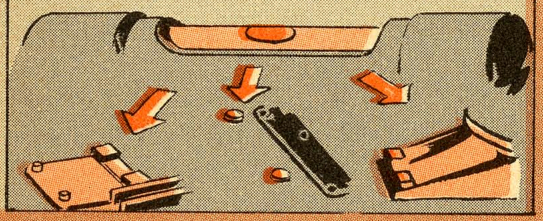


When you reach the point where you get the same quadrant reading on all three of the leveling-pad positions (within two mils up to 45 degrees elevation and four mils up to full elevation) your computing-sight is synchronized.

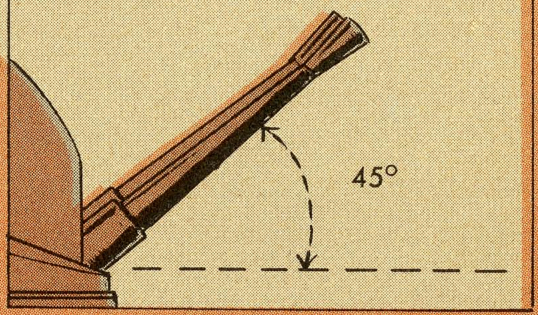
If you try and try and try and just can't do it, notify Ordnance. Something's wrong somewhere.

But, if everything's on the up and up so far, you're ready for boresighting.

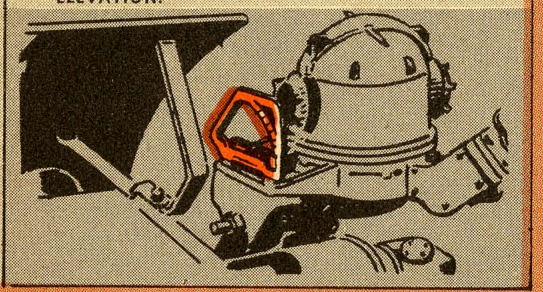
9 YOU SHOULD GET A LEVEL READING WHEN YOU PUT QUADRANT ON EITHER TOP-CARRIAGE LEVELING-PADS, THE BREECH-CASING LEVELING PADS OR THE COMPUTER-BODY LEVELING PADS. A DEFLECTION OF TWO MILS IS OK.



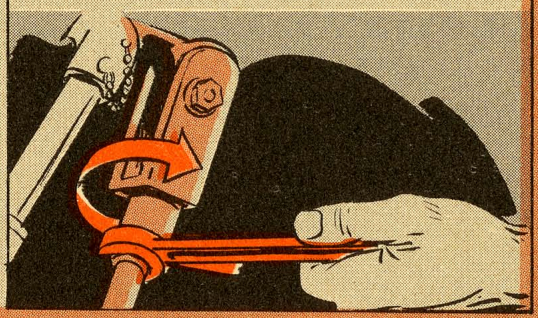
10 NOW, ELEVATE GUNS TO 45° AND CHECK LEVEL OF COMPUTER-BODY. IT MUST REMAIN LEVEL TO WITHIN TWO MILS.



11 RAISE GUNS TO FULL ELEVATION. COMPUTER BODY MUST REMAIN LEVEL WITHIN PLUS OR MINUS TWO MILS UP TO 45° AND PLUS OR MINUS 4 MILS FROM 45° TO FULL ELEVATION.



12 IF IT DOESN'T, RE-ADJUST ELEVATION DRAG-LINK TILL IT DOES. MAKE ADJUSTMENTS WITH GUNS AT ELEVATION WHERE QUADRANT SHOWS GREATEST DEFLECTION.



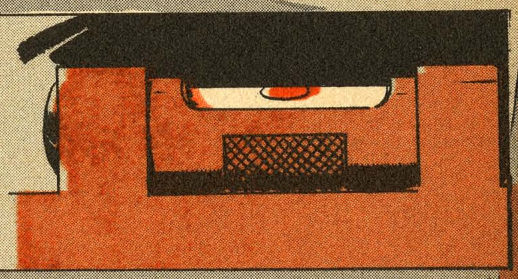
When you reach the point where you get the same quadrant reading on all three of the leveling-pad positions (within two mils up to 45 degrees elevation and four mils up to full elevation) your computing-sight is synchronized.

If you try and try and try and just can't do it, notify Ordnance. Something's wrong somewhere.

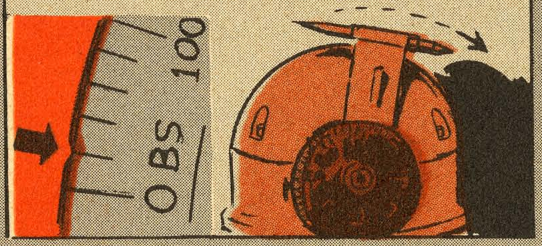
But, if everything's on the up and up so far, you're ready for boresighting.

BORESIGHTING

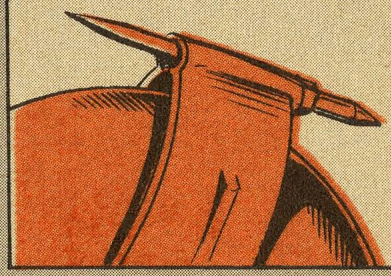
1 SET GUNS AT ZERO ELEVATION AND CHECK QUADRANT READING ON TOP-CARRIAGE LEVELING PADS, THE GUN-BREECH CASING LEVELING PADS AND COMPUTER BODY LEVELING-PADS. YOU SHOULD HAVE SAME BUBBLE READING YOU HAD BEFORE WHEN SYNCHRONIZING COMPUTER-SIGHT.



2 SET SPEED KNOBS ON COMPUTING SIGHT TO "BS" MARK (20 MPH) AND SET CLIMB-AND-DIVE BAIL TO 50° DIVE.

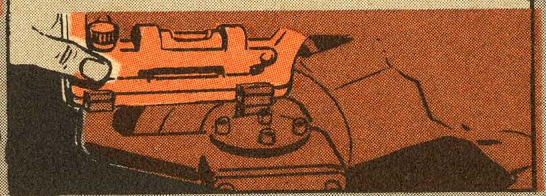


3 IN THIS POSITION THE DIRECTION-OF-FLIGHT INDICATOR WILL POINT DOWNWARD.

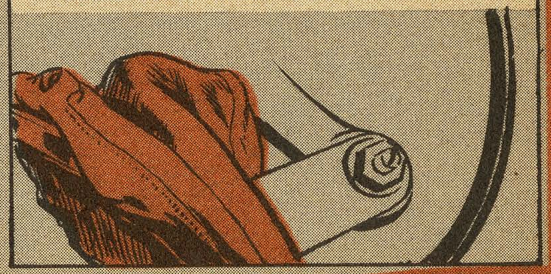


4 TURN COMPUTER-POSITIONING HANDWHEEL UNTIL YOU GET AN AZIMUTH READING OF PLUS 1600 MILS.

5 YOU NEED ONE MORE READING, SO PUT QUADRANT ON COMPUTER-MECHANISM-BODY LEVELING PADS. IF MECHANISM IS NOT LEVEL WITHIN TWO MILS, YOU HAVE SOME MORE ADJUSTING TO DO.

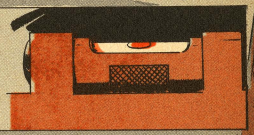


6 LOOSEN COMPUTER-BOTTOM-COVER CLAMP-SCREW AND DROP COVER-OVER BALL-AND-SOCKET JOINT TO GET TO BOTTOM OF THINGS.

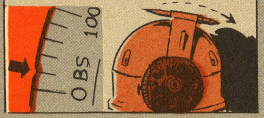


BORESIGHTING

1 SET GUNS AT ZERO ELEVATION AND CHECK QUADRANT READING ON TOP-CARRIAGE LEVELING PADS, THE GUN-BREECH CASING LEVELING PADS AND COMPUTER BODY LEVELING-PADS. YOU SHOULD HAVE SAME BUBBLE READING YOU HAD BEFORE WHEN SYNCHRONIZING COMPUTER-SIGHT.



2 SET SPEED KNOBS ON COMPUTING SIGHT TO "BS" MARK (20 MPH) AND SET CLIMB-AND-DIVE BAIL TO 50° DIVE.



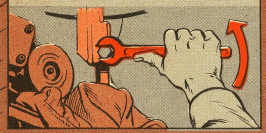
3 IN THIS POSITION THE DIRECTION-OF-FLIGHT INDICATOR WILL POINT DOWNWARD.

4 TURN COMPUTER-POSITIONING HANDWHEEL UNTIL YOU GET AN AZIMUTH READING OF PLUS 1600 MILS.

5 YOU NEED ONE MORE READING, SO PUT QUADRANT ON COMPUTER-MECHANISM-BODY LEVELING PADS. IF MECHANISM IS NOT LEVEL WITHIN TWO MILS, YOU HAVE SOME MORE ADJUSTING TO DO.

6 LOOSEN COMPUTER-BOTTOM-COVER CLAMP-SCREW AND DROP COVER-OVER BALL-AND-SOCKET JOINT TO GET TO BOTTOM OF THINGS.

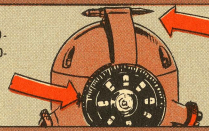
7 LOOSEN VERTICAL-SLIDE STEM-CLAMP-SCREW. SCREW VERTICAL-SLIDE STEM IN OR OUT TO LEVEL COMPUTER-MECHANISM-BODY.



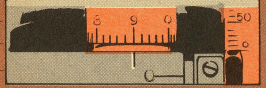
8 TIGHTEN UP THE STEM-CLAMP-SCREW. BEFORE YOU PUT COVER BACK WIPE VERTICAL-SLIDE AND STEM WITH CLEAN, LINT-FREE CLOTH AND APPLY THIN COAT OF GL GREASE, AIRCRAFT AND INSTRUMENT (MIL-G-3278). STOCK NO. 14-G-611-5 WILL GET YOU AN 8-OZ. TUBE.

9 SET COMPUTER-SPEED-KNOBS AT ZERO ON SPEED-KNOB SCALE.

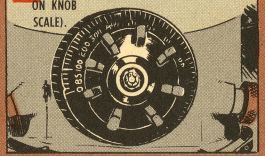
SET CLIMB-AND-DIVE BAIL AT ZERO ON THE ANGLE-OF-FLIGHT SCALE.



10 THIS SETTING WILL TILT COMPUTER-MECHANISM-BODY 9 MILS TO GIVE YOU YOUR SUPER ELEVATION. QUADRANT SHOULD READ 9 MILS **LESS** THAN PREVIOUS SETTING (THIS PUTS IN THE SUPERELEVATION).

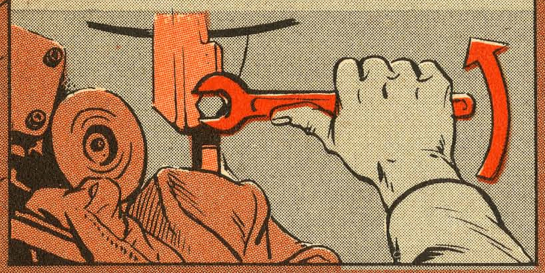


11 SET SPEED KNOBS TO "BS" MARK (20-MPH ON KNOB SCALE).

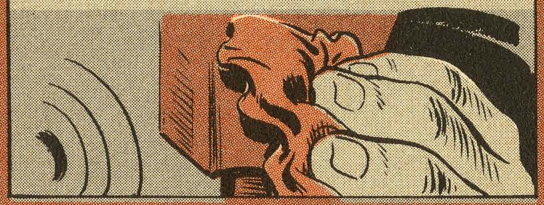


12 AND CLIMB-AND-DIVE BAIL AT 50 DEGREES ANGLE-OF-DIVE ON THE ANGLE-OF-FLIGHT SCALE.

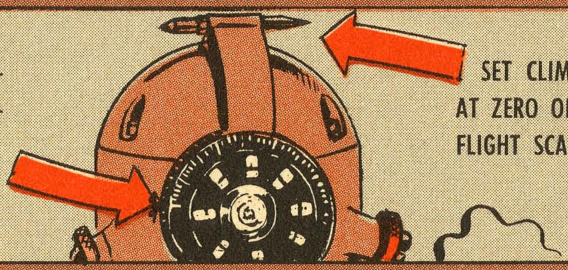
7 LOOSEN VERTICAL-SLIDE STEM-CLAMP-SCREW. SCREW VERTICAL-SLIDE STEM IN OR OUT TO LEVEL COMPUTER-MECHANISM-BODY.



8 TIGHTEN UP THE STEM-CLAMP-SCREW. BEFORE YOU PUT COVER BACK WIPE VERTICAL-SLIDE AND STEM WITH CLEAN, LINT-FREE CLOTH AND APPLY THIN COAT OF GL GREASE, AIRCRAFT AND INSTRUMENT (MIL-G-3278). STOCK NO. 14-G-611-5 WILL GET YOU AN 8-OZ. TUBE.

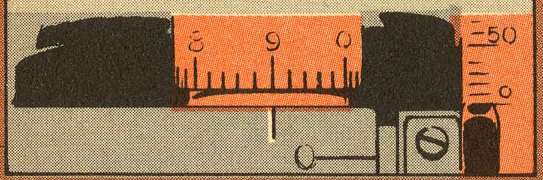


9 SET COMPUTER-SPEED-KNOBS AT ZERO ON SPEED-KNOB SCALE.

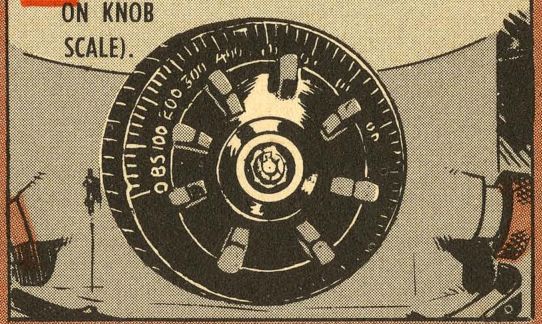


SET CLIMB-AND-DIVE BAIL AT ZERO ON THE ANGLE-OF-FLIGHT SCALE.

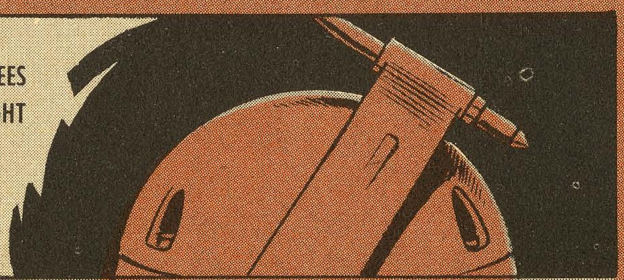
10 THIS SETTING WILL TILT COMPUTER-MECHANISM-BODY 9 MILS TO GIVE YOU YOUR SUPER ELEVATION. QUADRANT SHOULD READ 9 MILS **LESS** THAN PREVIOUS SETTING (THIS PUTS IN THE SUPERELEVATION).



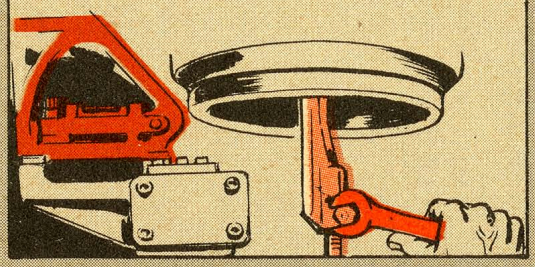
11 SET SPEED KNOBS TO "BS" MARK (20-MPH ON KNOB SCALE).



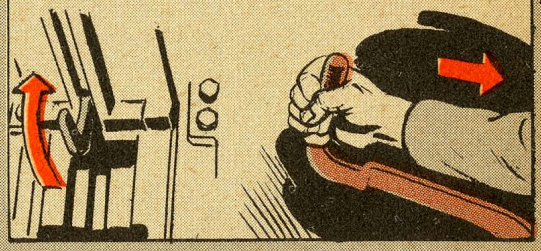
12 AND CLIMB-AND-DIVE BAIL AT 50 DEGREES ANGLE-OF-DIVE ON THE ANGLE-OF-FLIGHT SCALE.



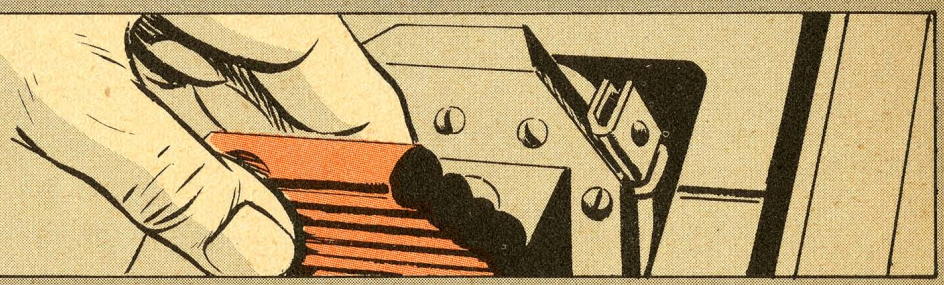
13 CHECK QUADRANT BUBBLE AGAIN IF OFF MORE THAN ONE MIL, (FROM BASIC SETTING). RE-ADJUST MECHANISM BODY TO GET IT LEVEL.



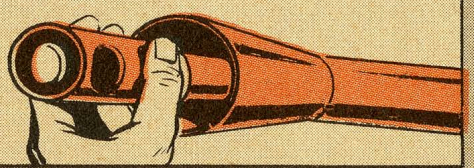
14 UNLOCK AND OPEN TOP COVER OF LEFT GUN. PULL HAND-OPERATING-LEVER AS FAR BACK AS IT WILL GO AND LOCK IT THERE.



15 PUT M17 BORE-SIGHT INTO BREECH



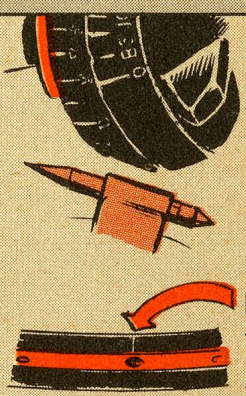
16 PUT MUZZLE-BORE-SIGHT (ORD STOCK NO. 41-S-3645-60) IN MUZZLE OF LEFT GUN, WITH CROSS WIRES VERTICAL AND HORIZONTAL.



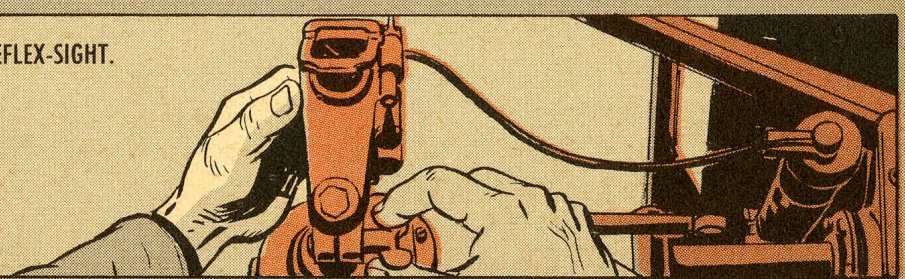
17 COMPUTER SPEED KNOB — 20 MPH

CLIMB-AND-DIVE BAIL — 50°

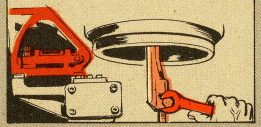
AZIMUTH SCALE — PLUS 1600 MILS



18 INSTALL REFLEX-SIGHT. PREPARE FOR MANUAL OPERATION.

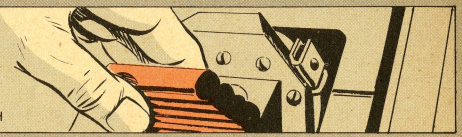


13 CHECK QUADRANT BUBBLE AGAIN IF OFF MORE THAN ONE MIL, (FROM BASIC SETTING). RE-ADJUST MECHANISM BODY TO GET IT LEVEL.

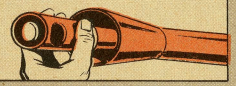


14 UNLOCK AND OPEN TOP COVER OF LEFT GUN. PULL HAND-OPERATING-LEVER AS FAR BACK AS IT WILL GO AND LOCK IT THERE.

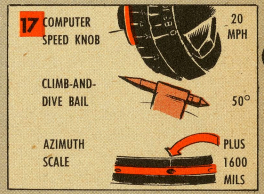
15 PUT M17 BORE-SIGHT INTO BREECH



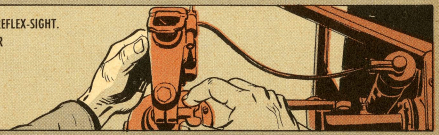
16 PUT MUZZLE-BORE-SIGHT (ORD STOCK NO. 41-S-3645-60) IN MUZZLE OF LEFT GUN, WITH CROSS WIRES VERTICAL AND HORTIZONTAL.



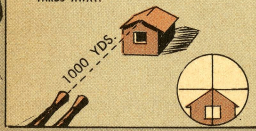
17



18 INSTALL REFLEX-SIGHT. PREPARE FOR MANUAL OPERATION.



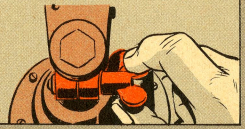
19 SIGHTING THROUGH GUN BORESIGHTS AIM LEFT GUN AT CLEAR TARGET AT LEAST 1000 YARDS AWAY.



20 ADJUST REFLEX-SIGHT IN ELEVATION AND AZIMUTH TO GET SAME SIGHT-PICTURE YOU GET WITH BORESIGHTS.

21 LOOSEN REFLEX-SIGHT SUPPORT-CLAMP-SCREW. TURN ELEVATION-ADJUSTING-WORM AND AZIMUTH-ADJUSTING-WORM TO ALINE CENTER OF REFLEX-SIGHT-RETICLE WITH GUN AIMING-POINT.

22 TIGHTEN REFLEX-SIGHT SUPPORT-CLAMP-SCREW AND RECHECK SIGHTS WITH GUN AIMING-POINT.



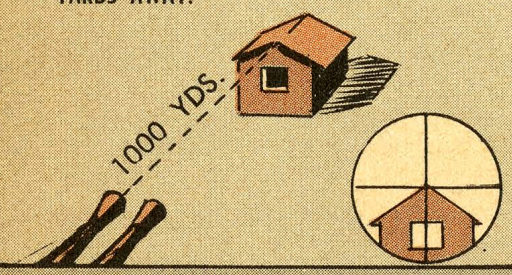
By now your computing-sight should be synchronized and your guns bore-sighted to the nth degree. And you can talk right back to any dirty birds that come your way.

Note: Make sure the M17 bore-sight and muzzle bore-sight are removed before closing the breech and top cover.

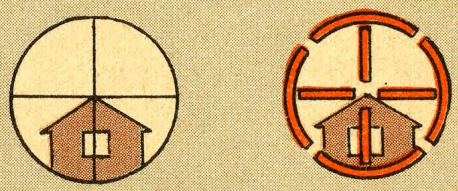
In case you didn't catch it, the big difference between this system and the one in your TM is the setting of the climb-and-dive bail. The TM says to set the angle-of-flight at full dive, which is 85 degrees. This is OK for the old computer, but there aren't many of 'em around.

With this system you set the angle-of-flight at 50 degrees dive. The difference is about four mils, so you're better off with this method if you have the newer sight.

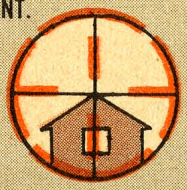
19 SIGHTING THROUGH GUN BORESIGHTS AIM LEFT GUN AT CLEAR TARGET AT LEAST 1000 YARDS AWAY.



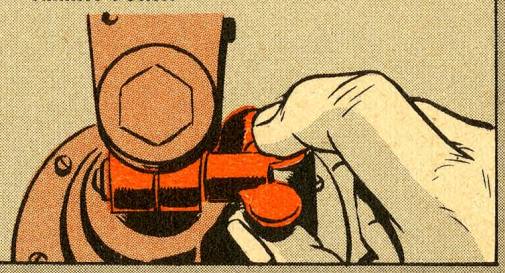
20 ADJUST REFLEX-SIGHT IN ELEVATION AND AZIMUTH TO GET SAME SIGHT-PICTURE YOU GET WITH BORESIGHTS.



21 LOOSEN REFLEX-SIGHT SUPPORT-CLAMP-SCREW. TURN ELEVATION-ADJUSTING-WORM AND AZIMUTH-ADJUSTING-WORM TO ALINE CENTER OF REFLEX-SIGHT-RETICLE WITH GUN AIMING-POINT.



22 TIGHTEN REFLEX-SIGHT SUPPORT-CLAMP-SCREW AND RECHECK SIGHTS WITH GUN AIMING-POINT.



By now your computing-sight should be synchronized and your guns bore-sighted to the nth degree. And you can talk right back to any dirty birds that come your way.

Note: Make sure the M17 bore-sight and muzzle bore-sight are removed before closing the breech and top cover.

In case you didn't catch it, the big difference between this system and the one in your TM is the setting of the climb-and-dive bail. The TM says to set the angle-of-flight at full dive, which is 85 degrees. This is OK for the old computer, but there aren't many of 'em around.

With this system you set the angle-of-flight at 50 degrees dive. The difference is about four mils, so you're better off with this method if you have the newer sight.

URGENT!

MWO FOR BAZOOKAS

There's a big deal in the mill for your 3.5-in rocket launchers, so keep an eye peeled for MWO Ord B42-W2. It'll give you a new contactor latch-group-assembly, plus some bore-sighting notches on the muzzle deflector. It'll also convert the M20 into the M20A1, and the M20B1 into the M20A1B1. The work'll be done by Ordnance, and it's marked "Urgent."

RECOIL OIL GUNS

Some of the 120-mm ack-ack boys have been complaining that the new recoil oil gun, Gun, (filler), oil, recoil, hand-lever operated, 41-G-1348-190 doesn't have the zap to push the big AAA weapons into battery.

What they need is this new check valve on their recoil oil guns. It's valve, check assembly, Stewart-Warner No. G309360 with Bushing, Stewart-Warner No. 45120. The whole thing's carried under Federal Stock No. 4930-00-17004. Ordnance can get it for you under MWO Ord J17-W1. The MWO is dated May 55 and it's classified "Urgent."

EXTRACTORS MODIFIED?

The chances are the original extractors on your 90-mm ack-ack guns were modified like it says in MWO Ord D28-30 (M1 series) or MWO Ord D38-W16 (M2 series). Your gun book will give you the dope.

But here's the curve ball: Could be that an unmodified extractor has slipped in on you since the MWO was applied. The modified extractors, both right and left, have a flat surface ground on the extractor lugs, like in Fig. 1.

So give your extractors the once-over to see if they have the flat surface on the lugs. If they don't, have Ordnance grind 'em down.

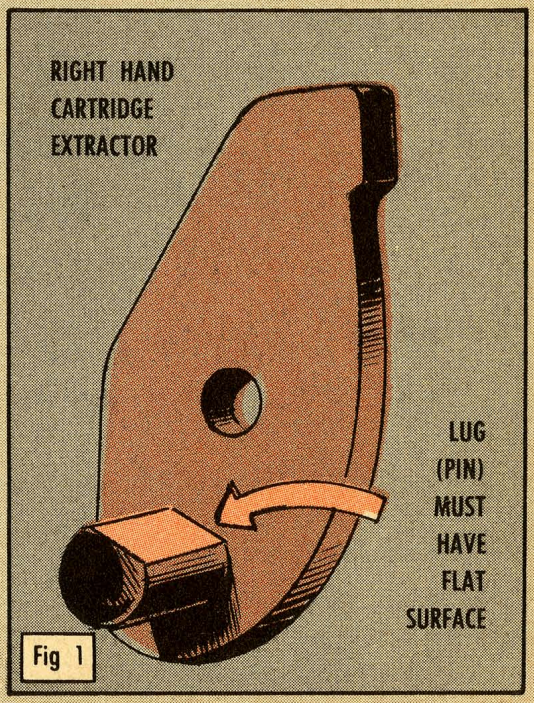
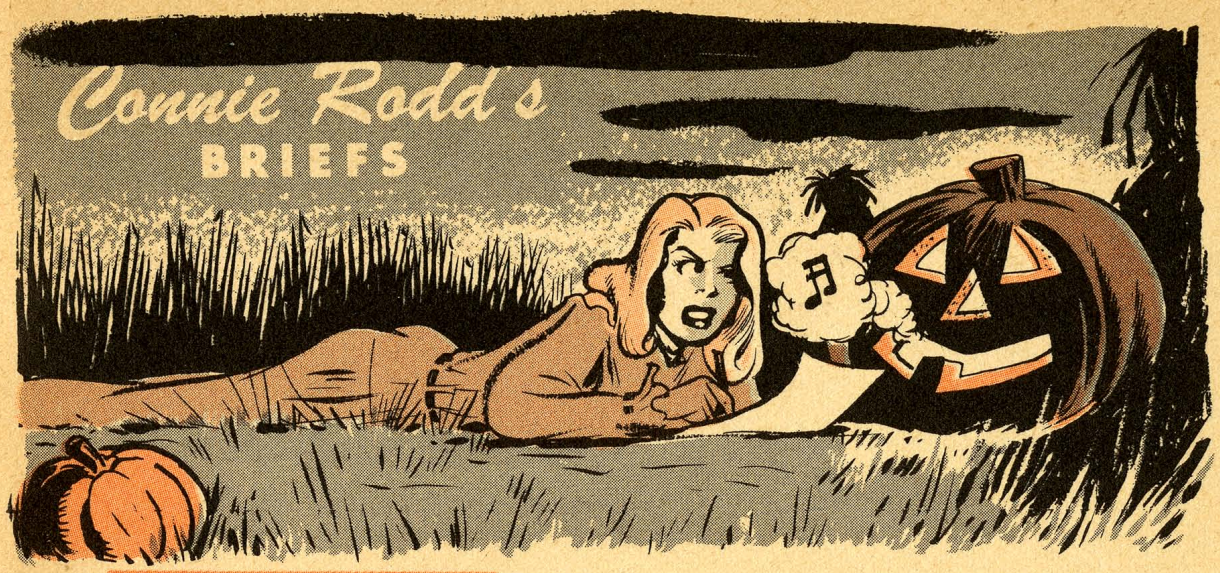


Fig 1



Clean that well

Before you take a spark plug out of your vehicle's engine, be sure to clean out the plug well. If you've got any sand, dirt or trash in that well, it'll fall right down in the cylinder and really foul up your engine. So—clean that well.

Tight hatch? Natch!

Gotta be tight to be right. Any good tankman'll tell ya. A loose hatch-cover flapping around over rough terrain can bust a periscope—or somebody's skull. Y'got handy catch locks there, friend. So keep your hatch-covers tight—open or shut—but tight. Right?

Just a reminder

Next time you thumb through TM 9-767 (M26A1 truck-tractor), stick a note in on page 269 to remind the next guy that this vehicle uses an 18-mm spark plug (Ord Stock No. H004-0501002).

No rusty load

Here's a way to get rid of that rusty load you might be carryin' around. The next time you park your dump truck, elevate the dumper a little bit. That way water won't accumulate and the dumper'll stay free of rust. It only takes a few seconds to set a block between the dump body and the truck chassis . . . and the water'll run right out the back. It's just one of those little things that'll help your equipment last longer and do a better job.

Oughta be a law

Yeah, I'm against guys who play with fording-valve handles. Itchy hands could leave the valves partly closed, causing leaks all over the place. Better check the handle every day, at trip ticket set-up time, to make sure it's pushed in tight. And while you've got the hood up, see if the valves are wide open.

INDEX PS 25-36

Your monthly reference guide to all subjects covered in the last 12 issues of PS Magazine

PS DIV.	ISSUE NUMBER / MAJOR ITEM	25	26	27	28	29	30	31	32	33	34	35	36
		PAGE NUMBER											
AUTOMOTIVE—General Items	BRAKES	14	47, 49	46, 47	16, 31		47				49		
	COOLING SYSTEM		31, 49		17, 20			13, 21, 29		13			
	DOCTRINE	1C			1C	1C, 49	1C	1C, 14	1C	1C, 49	1C, 41	1C	1C
	ELECTRICAL	31, 48	49	14, 36, 48	47	2, 18, 31	11, 32	6, 18	15	16, 29	14, 34	30, 49	14, 31
	FORMS	17, 36	2, 38	29	49	31	40		40				
	LUBRICATION & OILS	15, 48		21, 37	31	32	16		2	30, 47	15, 46		
	PUBLICATIONS	16	39	20, 49	40, 41	20	41, 49	35	33	29, 33	41	30, 45, 47	46
	SEASONAL CHANGES	19, 20, 21			38, 46								
	SUPPLY		1C, 2, 31, 32	49	49	49			30	11, 12, 30	15, 21	32, 49	30
	TIRES WHEELS	29	46, 49	35, 36, 49	38		29		29	37			
	TOOLS						4			10	2	2	
	WINCHES		49	4, 46	15, 30	30		15	47				
ARMAMENT AND AMMUNITION	AMMO (GENERAL)		34	49						10	36		
	90MM AAA GUN	35		39, 41		35, 36, 37	31	34	32, 49	30		35, 49	18
	120MM AAA GUN			38, 39		35, 37						34	18
	75MM AAA GUN		48	39		35, 37	49		35		38	35	18
	HOWITZERS & GUNS	34, 48			49							33	16, 18
	76MM TANK GUNS	35		40		38	36	34					18, 31
	90MM TANK GUNS			40	12	38	34, 35, 36, 49	31, 34	34	34	18		18, 47
	40MM AAA GUNS					39	37		16	10, 49	40		18
	50 CAL. MACHINE GUNS				21, 32		34		38		39	36, 37	
	30 CAL. MACHINE GUNS		37, 48			36		32			39		
	30 CAL. B.A.R.						33				39		
	30 CAL. RIFLES		21, 33		33	35, 36		48	34		12, 39	37	
	30 CAL. CARBINE	46				30			31, 49		39		36
	45 CAL. PISTOL										39	39	
	45 CAL. SUBMACHINE GUN										39	38	
	MORTARS				33, 34			34			39		
	RECOILLESS RIFLES	34				37						38	
	ROCKETS & LAUNCHERS						21, 30		34		49	49	34, 49
FIRE CONTROL	M33 SYSTEM	32, 34	36, 49	35		38, 47	38, 39	30, 36, 40	35, 39, 49, 15	48	46	46	38, 48
	SIGHTS AND SCOPES	32, 48	48		32	49	37			49	38, 49		12, 15
ENGINEERS	AIR COMPRESSORS									45	44, 45	41	
	WATER PUMPS				43				43				
	GENERATORS		40						42		43		
	TRANSMISSIONS											42, 43	
	GRADERS		41			45							
	HEATERS												44, 45
	GASOLINE ENGINES		43							42			40
	DIESEL ENGINES				45				44, 45				
	AIR CONDITIONERS							44					
	TRACTORS, DOZERS	12, 43, 45	43			43, 44	44, 45			44, 45	42	40	26, 27, 28
	SUPPLY AND SPARE PARTS		43							46			42, 43
	POWER CONTROL UNITS					44							
	MISCELLANEOUS		43		42		43			43			41
	FIRE EXTINGUISHERS			42, 43									
	THE ROUND-UP, PUBLICATIONS	44	42	45	42, 44	46	46	45	42, 43	46	43	40, 44	41
	CLUTCHES			44								43	
	CRANES, SHOVELS				43		42						
	SEASONAL CHANGE-OVER							41, 42, 43					

1C—INSIDE FRONT COVER; 3C—INSIDE BACK COVER; 4C—OUTSIDE BACK COVER

THE FIRST NUMBER IS THE PS ISSUE. THE SECOND NUMBER IS THE PAGE NUMBER.

DIV.	MAJOR ITEM	POWER UNIT	FUEL SYSTEM	EXHAUST SYSTEM	ELECTRICAL SYSTEM	TRANS-MISSION	FINAL DRIVE	TRACKS AND SUSPENSION	OPER-ATION	LUBRI-CATION OILS	TURRET	ACCESSO-RIES AND TOOLS	AUXILIARY GENERATOR
TRACK	GUN CARRIAGES			34-49		26-48	27-18	26-44, 27-16 35-15	33-2, 33-21 35-9	27-16	27-14, 36-49	33-11, 36-44	34-5, 36-20
	PERSONNEL CARRIERS	31-7		30-11, 30-12 34-49	30-10	26-48	27-18	26-44, 27-16 35-15	33-2, 33-21 35-48	27-16	27-14, 36-49	33-11, 33-49 36-44	34-5, 36-20
	TANK—M46, M46A1	34-49		34-49	30-10, 30-49 31-6	26-48, 27-12	27-18	26-44, 27-16 30-14, 35-15 36-29	33-2, 33-21	27-16	27-14, 32-14 32-37, 36-49	33-11, 36-44	34-5, 36-20
	TANK—M47	34-49	28-13	34-49, 36-49	28-17, 30-10 30-49, 31-6	26-48, 27-12 35-18, 35-49	27-18	26-44, 27-16 30-14, 35-15 36-29	33-2, 33-21	27-16	27-14, 30-35 32-14, 32-37 36-49	33-11, 36-44	34-5, 36-20
	TANK—M48	28-6, 29-49 34-49	28-13	34-49	27-49, 30-10 30-49, 31-6	26-48, 27-12 28-7, 35-18 35-49	27-18, 32-18	26-44, 27-16 28-2, 30-14 30-19, 30-20 31-48, 32-20 35-15	25-2, 33-2 33-21, 33-34 34-18	27-16, 30-17	27-14, 29-49 30-34, 32-14 32-37, 34-18 36-47, 36-49	28-10, 29-49 31-29, 33-11 36-44	28-8, 34-5 36-20
	TANK—M41, M41A1	25-30	28-13, 31-16	34-49	30-10, 30-49 31-6	26-48, 36-10	27-18	26-44, 27-16 27-49, 28-47 29-17, 30-12 30-14, 35-15	33-2, 33-21	27-16	27-14, 30-36 32-16, 32-49 32-37, 36-31 36-49	33-11, 34-40 36-33, 36-44 36-49	30-13, 31-17 34-5, 36-20
	TANK—M42 (SP)	25-30	29-19, 34-49	34-49	30-10	26-48, 36-10	27-18	26-44, 27-16 27-49, 28-47 35-15	33-2, 33-21	27-16	27-14, 29-42 36-49	33-11, 34-40 36-33, 36-44	34-5, 36-20
	WRECKER—M74			34-49			27-18	26-44	33-2, 33-21 34-6, 34-16 35-20	28-29, 33-11		31-13, 36-44	34-5, 36-20

DIV.	MAJOR ITEM	ACCESSORIES	BODY	CHASSIS	ENGINE	EXHAUST SYSTEM	FUEL SYSTEM	INSTRUMENTS AND GAGES	LUBRI-CATION	POWER TRAIN	STEERING SYSTEM	OPER-ATION	TOOLS AND EQUIPMENT
WHEEL	TRUCKS—M38, M38A1	29-36, 31-15 32-21, 32-49 33-47, 34-17 36-44	26-32, 26-49 27-15, 31-16 32-17	27-13	25-19, 20 27-15, 28-16 29-21	36-49	25-14, 30-30 31-12, 31-49	30-30, 31-2	25-16, 26-29	27-13, 29-47	25-48, 32-49	30-2, 31-2 31-8, 33-2	25-16, 25-17 26-20
	TRUCKS—M37	29-36, 32-21 32-49, 33-47 34-17, 36-44	26-49, 28-48 32-46, 36-48	27-13	25-19, 20 28-16, 29-21 31-12	36-49	25-14, 31-12	31-2				30-2, 31-2 31-8, 36-21 33-2, 33-47 34-33, 34-47 35-21 36-13	25-17
	TRUCKS—M133 SERIES 2-1/2 TON GMC'S	29-36, 32-21 32-49, 33-47, 34-17 36-44	26-49, 28-48 29-20, 30-48 32-48	27-13, 32-17 35-16	25-19, 20 25-46, 28-16 29-21, 30-47 31-12, 32-30	30-47, 36-49	25-14, 25-18 25-47, 26-18 31-12	26-19, 31-2	25-29, 26-48 27-35, 28-46 29-18, 36-32	25-48, 26-17 26-30, 31-20 34-15, 35-2	26-17, 27-36	30-2, 31-2 36-21, 31-8 33-2, 33-47 34-33, 35-21 36-13	25-17, 26-32
	TRUCKS—M44 SERIES 2-1/2 TON REO'S	29-36, 30-10 32-21, 32-49 33-47, 34-17 36-44	26-49, 28-48 29-20, 35-46	27-13, 31-46 32-17	25-19, 20 28-16, 29-21 29-41, 31-12 32-30	36-49	25-14, 25-18 26-18, 31-12	31-2		27-15, 29-17	35-17	30-2, 31-2 31-8 33-2, 33-47 34-33, 36-21 35-21, 36-13	25-17
	TRUCKS—M39 SERIES 5-TON	26-49, 29-36 32-21, 32-49 33-47, 34-17 36-44	26-49, 28-48 34-48	27-13	25-19, 20 26-48, 27-2 28-16, 29-21 31-12, 32-30	36-49	25-14, 26-18 31-12	31-2		25-48, 26-19 27-15, 34-20	28-49, 29-16	30-2, 34-35 31-2, 31-8 36-21, 33-2 33-47, 34-33 35-21, 36-13	25-17
	WRECKER M62	28-15, 28-30 29-30, 36-44	26-49		25-19, 20 28-16	28-17, 36-49	25-14, 31-12		29-18, 31-49	28-49, 33-32		28-29, 28-46 33-2, 35-21	25-17
	TRAILERS	30-47	28-17, 32-15									33-2, 36-49	25-30
	COMMERCIAL	33-29, 33-47	26-49, 30-48		25-19, 20 29-21				32-30, 35-29 36-31			33-2, 36-21	

THE BEST BOOK ON Magic AROUND

GET THAT MANUAL

Whether you're lifting a hex off of a good milk cow or a piece of US Army equipment—it's all the same...you've got to go by the book.

And the best part of it is that TM'S are easy to come by—simply tear yourself outta the sack and get the order number from your equipment's SNL. Your SNL is your authority.

Then you requisition that TM just like you would a repair part—except you get it from the publications people. You can get your equipment's SNL and LUBE ORDER the same way.

If you've got the equipment that's your NEED-TO-KNOW ... Order the manual today.

REMEMBER... YOUR SNL IS YOUR AUTHORITY